

India Deep Dive Scenesetter

DRAFT for IAWG Presentation

Interagency Working Group to Reduce Violence
Against Environmental Defenders

July 16, 2020 (TBC)

9:00-11:00 a.m. Eastern Time

Note: This presentation was prepared under State Department direction by several interns using a variety of open source materials, some of which may not be accurate. The timeline is intended to help U.S. government personnel understand the complexities of this conflict, but is not a U.S. government product. It is still being updated and refined.

Scenesetter Roadmap

- Background
- Sectors and Cases
- Observations and Look Fors
- References

Legend

More information *useful*

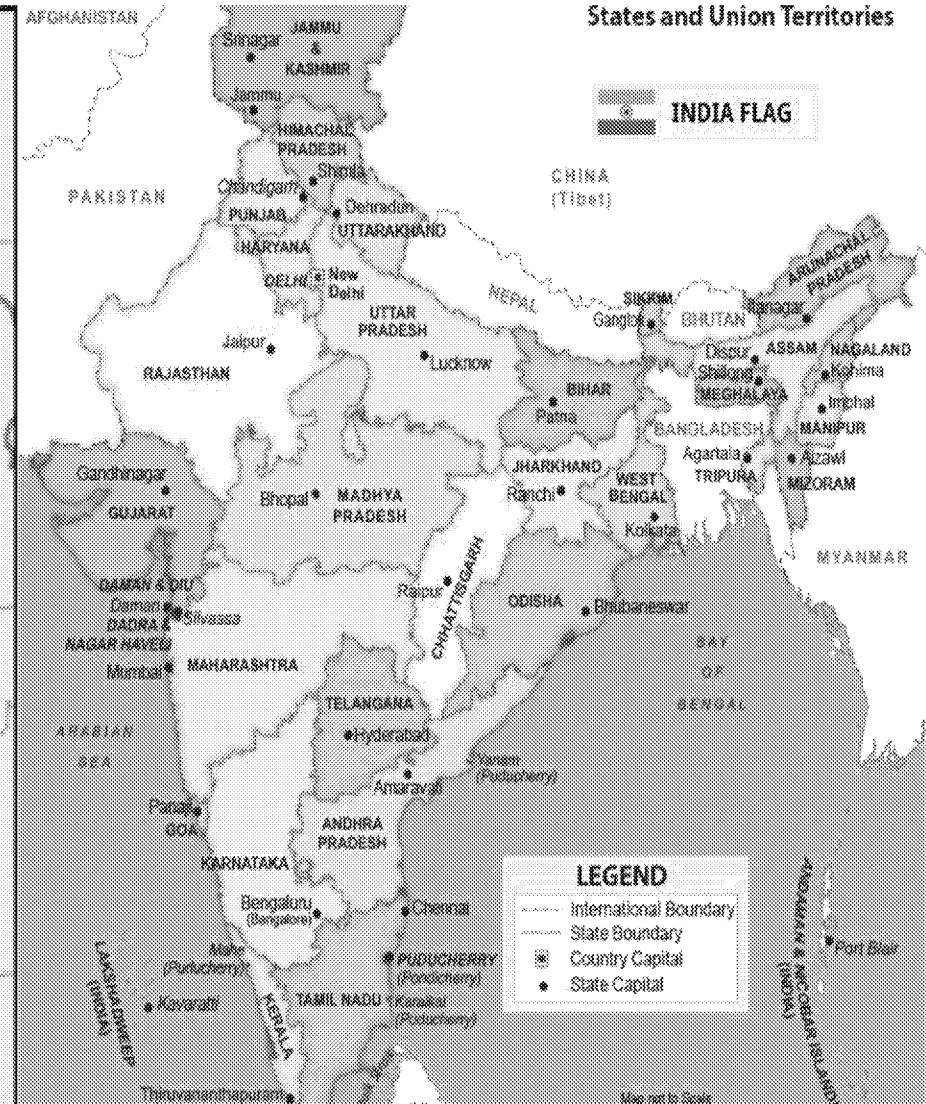
More information *desirable*

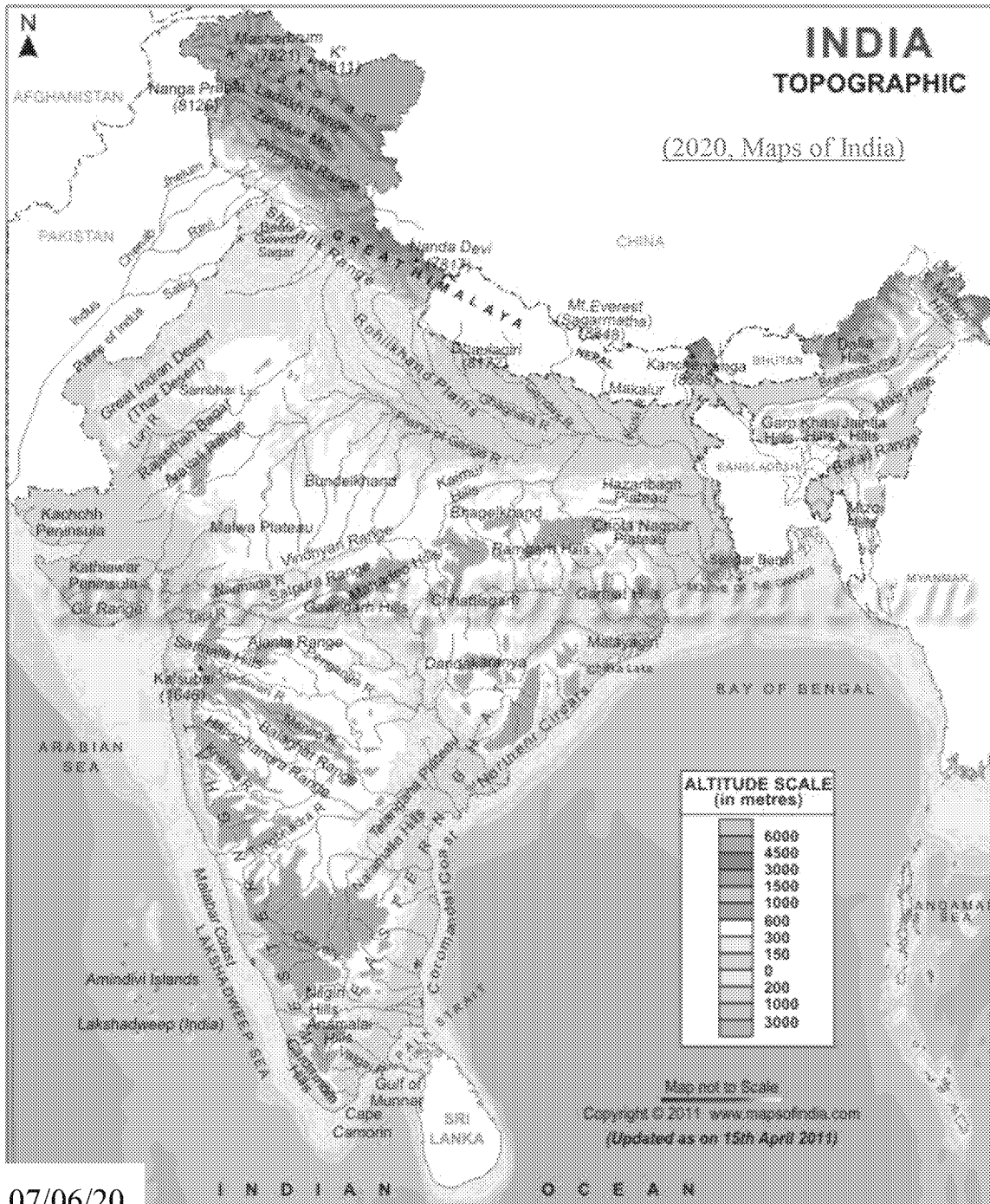
Background Section

- Geography, Topography
- Political, including Rule of Law, Civil Society, and Human Rights
- Economic, including Trade
- Social, including Scheduled Castes and Scheduled Tribes
- Environmental, including Land Conflicts
- NGOs and Environmental Defenders

Geography

India is **3.287 million sq km**, eighth largest country in the world in terms of area





Topography

Five zones [Nations Encyclopedia](#):

- Himalayas/associated ranges--northern boundary;**
- Peninsula, huge massif of ancient crystalline rock, severely weathered and eroded;**
- Ganges-Brahmaputra Lowland, structural trough between two rivers, now an alluvial plain carrying some of India's major rivers from the Peninsula and the Himalayas to the sea;**
- Narrow coastal plain along the Arabian Sea;**
- Wider coastal zone along the Bay of Bengal.**

Political Background

- **By the 19th century, Great Britain was the dominant political power on the subcontinent;** India was seen as the British Empire's "Jewel in the Crown."
- Years of nonviolent resistance to British rule, led by Mohandas Gandhi and Jawaharlal Nehru, resulted in **Indian independence in 1947.**
- **Large-scale communal violence took place before and after the subcontinent partition into two separate states - India and Pakistan.**
 - Three wars since independence, last in 1971, resulted in East Pakistan becoming Bangladesh.
 - India, China, and Pakistan's territorial dispute in **Kashmir** remains one of the world's **largest and most militarized territorial dispute.** India does not recognize Pakistan's ceding historic Kashmir lands to China in 1964 and further claims that China has transferred missiles to Pakistan.
- **Economic growth following economic reforms in 1991,** a massive youthful population, and its strategic geopolitical location have contributed to India's emergence as a regional and global power.
- Pressing problems: **significant overpopulation, environmental degradation, extensive poverty, and widespread corruption.**

(CIA World Factbook)

Three-Tiered Local System of Self Governance

The 73rd Amendment to the Constitution of India, introduced in 1992, creates three-tiered "Raj Panchayat" or system of local self-governance. **Village level** - gram panchayat; **Block Level** - panchayat samiti; **District Level** - zila parishad. ([73rd Constitutional Amendment, Study.com](#))

It also establishes a definition of Gram Sabha: "a body consisting of persons registered in the electoral rolls relating to a village comprised within the area of Panchayat at the village level". ([India.gov, The Constitution \(73rd Amendment\) Act, 1992](#))

Other definitions:*

- 1) "district" means a district in a State;
- 2) "Panchayat" means an institution (by whatever name called) of self-government constituted under article 243B, for the rural areas;
- 3) "Panchayat area" means the territorial area of a Panchayat;
- 4) "population" means the population as ascertained at the last preceding census of which the relevant figures have been published;
- 5) "village" means a village specified by the Governor by public notification to be a village for the purposes of this Part and includes a group of villages so specified.

Rule of Law Index®

2019

India

Overall Score

0.51

Regional Rank

3/6

Income Rank

7/30

Global Rank

68/126

Score Change

-0.01 ▼

Rank Change

-3 ▼

	Factor Trend	Factor Score	Regional Rank	Income Rank	Global Rank
 Constraints on Government Powers	—	0.61	1/6	3/30	40/126
 Absence of Corruption	—	0.43	3/6	8/30	80/126
 Open Government	—	0.61	1/6	1/30	34/126
 Fundamental Rights	—	0.53	3/6	8/30	75/126
 Order and Security	—	0.59	3/6	22/30	111/126
 Regulatory Enforcement	—	0.48	3/6	10/30	76/126
 Civil Justice	—	0.45	3/6	17/30	97/126
 Criminal Justice	—	0.40	3/6	11/30	77/126

Absence of Corruption



2.1



0.44

In the executive branch

2.2



0.49

In the judiciary

2.3



0.44

In the police/military

2.4



0.33

In the legislature

Regulatory Enforcement



6.1



0.41

Effective regulatory enforcement

6.2



0.45

No improper influence

6.3



0.40

No unreasonable delay

6.4



0.53

Respect for due process

6.5



0.63

No expropriation w/out adequate compensation

07/06/20



Trending down

Low

Medium

High

Endemic Government Corruption, including on Timber, Rare-Wood Smuggling in NE States


Every State Department Country Report on Human Rights Practices for India (Human Rights Report) from back to at least 2004 to 2019 cites corruption as a major concern.*

- **2004:** “There was a widespread public perception that corruption was endemic in the executive and legislative branches of government. Transparency International stated that corruption was “all-pervasive in India,” that election campaigns for Parliament and State Legislature seats were often funded with unreported money, and that the Government had failed to combat the problem.” ([2004, Human Rights Report on India](#))
- **2019:** “The law provides criminal penalties for corruption by officials at all levels of government. Officials frequently engaged in corrupt practices with impunity. There were numerous reports of government corruption during the year.”
 - **“Corruption was present at all levels of government.”**

Further, every Human Rights Report from 2014 to 2019 **cites timber and “rare-wood” smuggling as a concern under corruption.*** ([2014, Human Rights Report on India](#))

- **2019:** “Media reports, NGOs, and activists reported links among politicians, bureaucrats, contractors, militant groups, and security forces in... timber smuggling in the northeastern states.” ([2019, Country Report on India](#))

Corruption, Overburdened Judiciary; Strong Civil Society




7.25

defective
democracy

Political Transformation

#29 of 137



6.14

limited

Economic Transformation

#48 of 137



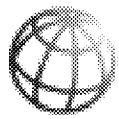
5.92

good

Governance Index

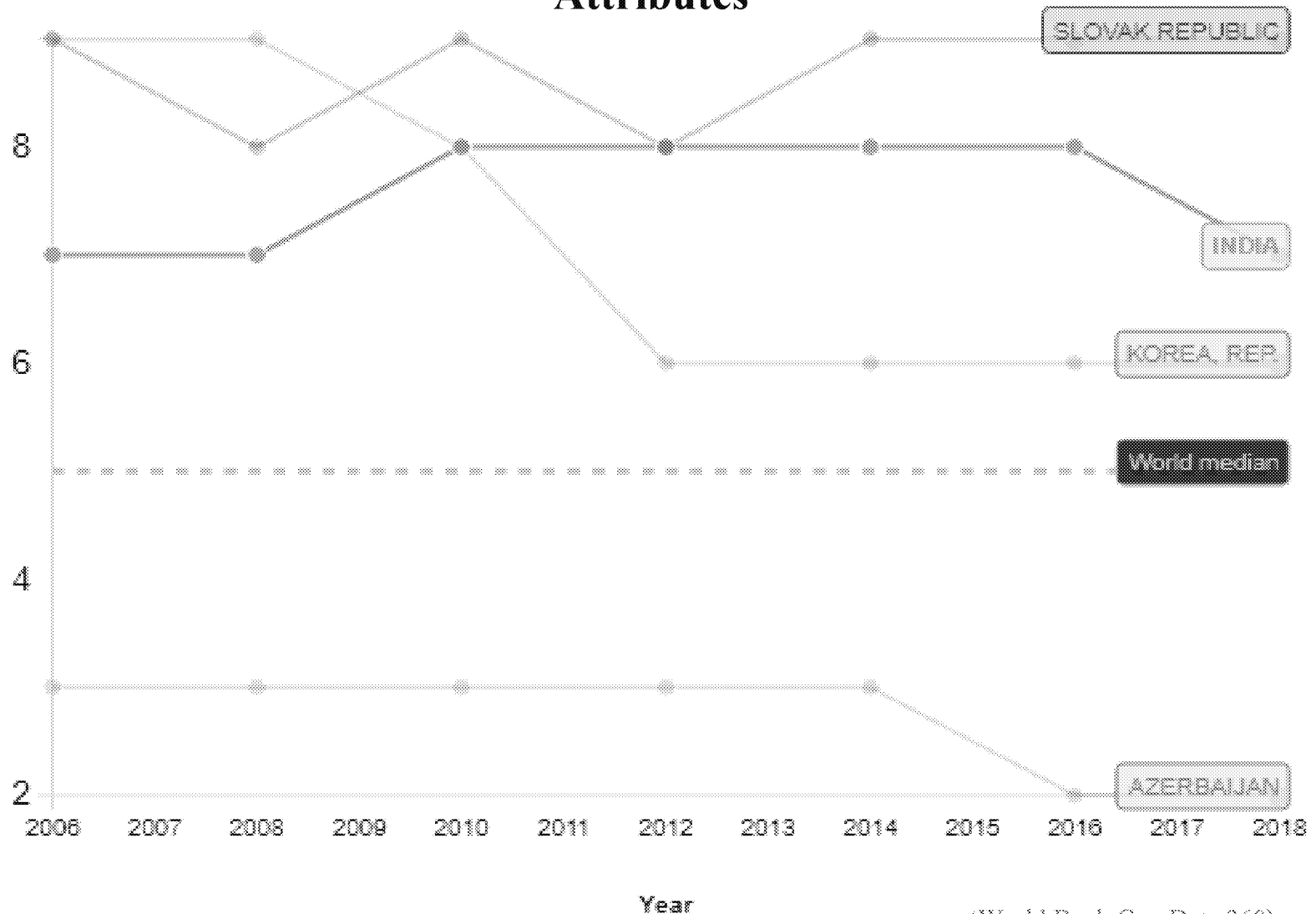
#32 of 137

- BJP-led government has a clear reformist agenda, but **still-pervasive corruption and an overburdened judiciary continued to hamper performance.**
- **Millions of NGOs operate in a range of issue areas, including environmental issues, human rights protection** and the struggle for gender equality.
- **Civic culture of participation in public life always been rather strong.** Large number of demonstrations all over India on any subject shows marginalized social groups take to the streets and organize to make their voice heard.



Civil Society Participation Index

India Compares Well to World Median and Countries with Similar Economic Attributes



Right to Information Act - Best Practice; Risky

2005 Right to Information Act (RTI) is seen as international best practice.

- UN Environment Programme (UNEP)* notes RTI “aimed at increasing the capacities of the public to make use of opportunities for access to environmental information,” led to “several success stories.” [\(2015, UNEP Bali Implementation Guidelines, pp 58-59\)](#)
- Freedom House has said RTI is widely used to **improve transparency and expose corrupt activities** [\(2020, Freedom House\)](#)

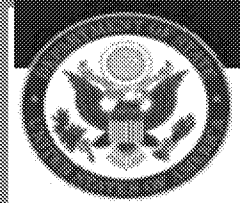
2013: The 2013 RTI Index rated India in the “top 5” countries for access to information [\(2015, UNEP Bali Implementation Guidelines, p 60\)](#)

It can be dangerous to use RTI to target corruption. The New Delhi-based NGO Commonwealth Human Rights Initiative (CHRI) documented **450 attacks on RTI users** from Oct 2005 (when RTI entered into force) to July 4, 2020: [\(2020, CHRI\)](#)

– 87 killed; 172 assaulted; 184 harassed or threatened; 7 death by suicide

Jul 17, 2018: Government proposed RFI amendment to reform Central Information Commission (CIC), the main body overseeing requests for information. Fearing this would erode the CIC’s independence and reduce ability to access information, CSOs and opposition political parties mounted a strong opposition [\(Sep 10, 2019, Civicus\)](#)

- **Aug 1, 2019: President gave assent to Amendment**, passed by Parliament in July 2019 after government introduced it in July 2019 [\(Aug 2019, The Gazette of India\)](#)



Political: Country Report on Human Rights Practices for 2019

“Significant human rights issues included:

- **unlawful and arbitrary killings, including extrajudicial killings perpetrated by police;**
- torture by prison officials;
- **arbitrary arrest and detention by government authorities;**
- harsh and life-threatening prison conditions;
- political prisoners in certain states;
- **restrictions on freedom of expression and the press, including violence, threats of violence, or unjustified arrests or prosecutions against journalists, use of criminal libel laws to prosecute social media speech, censorship, and site blocking;**
- **overly restrictive rules on nongovernmental organizations (NGOs);**
- **frequent reports of widespread corruption at all levels of government;**
- violence and discrimination targeting minorities based on religious affiliation or social status; and forced and compulsory child labor, including bonded labor.”

Laws to Limit Behavior for National Security Reasons

Sedition

- Sedition is covered under section 124 A of the Indian Penal Code, which says "whoever by words, either spoken or written, or by signs, or by visible representation, or otherwise, brings or attempts to bring into hatred or contempt, or excites or attempts to excite disaffection towards, the Government established by law in India, shall be punished with imprisonment for life... or with imprisonment which may extend to three years. (2018, New Indian Express)

Section 144

- “Section 144 of the Criminal Procedure Code (CrPC) of 1973 authorises the Executive Magistrate of any state or territory to issue an order to prohibit the assembly of four or more people in an area.” (Business Standard)

Unlawful Activities (Prevention) Act of 1967 (UAPA)

- UAPA 1967 “was developed as an anti-terrorism law to prevent such unlawful activities association and maintain the sovereignty and integrity of India.” (2020, Jurist)
 - Unlawful Activities (Prevention) Amendment Act of 2019 “extended the power to include within its scope the categorization of individuals as terrorists as well”, whereas the original Act did not.

Maoists, also Called Naxalites or Naxals

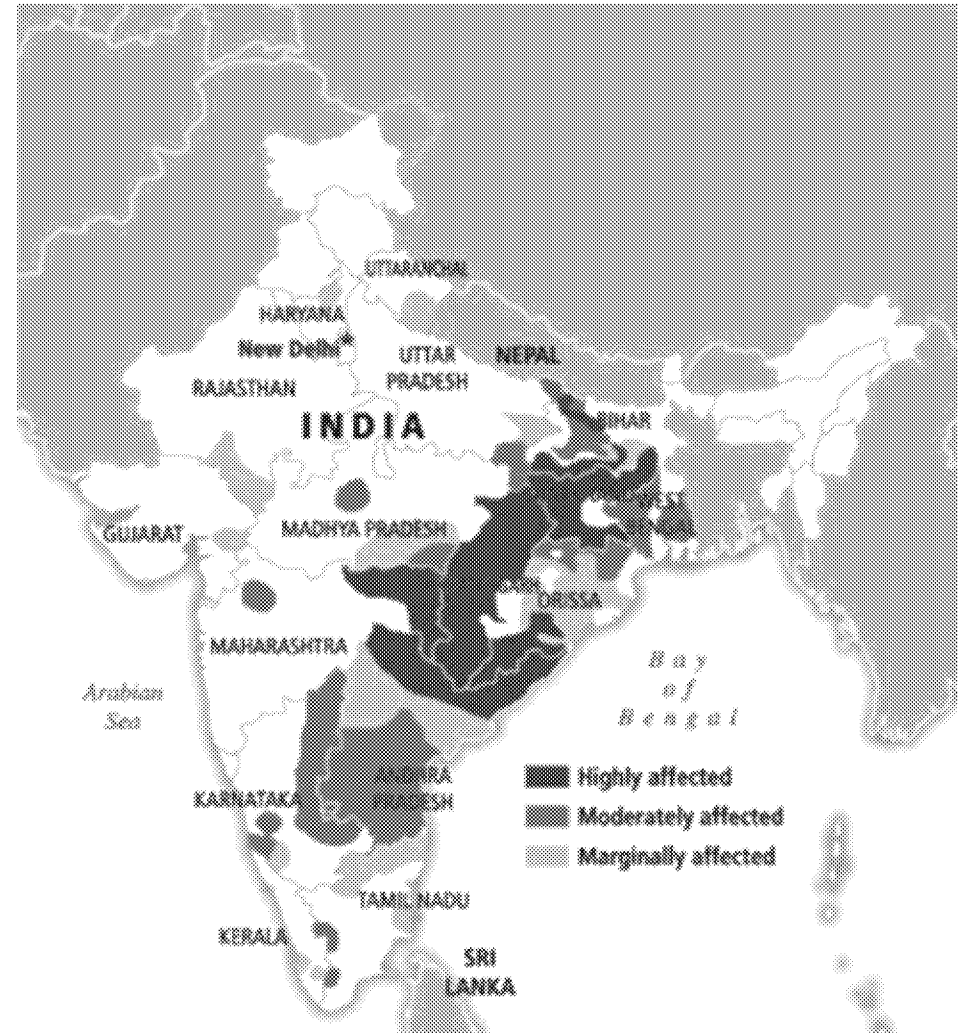
In 2004, several **Maoist groups merged to form the Communist Party of India (Maoist)** [\(2013, Reuters\)](#)

- They are the largest left-wing extremist organization in the country
- They say they are fighting for the rights of poor farmers and landless labourers

Aim is to **overthrow the state and usher in a classless society.** [\(2013, Reuters\)](#)

Between 2001-2012, their attacks **killed nearly 8,000 people.** [\(2013, Reuters\)](#)

Local villagers are often caught in the middle of the conflict. [\(2010, Forbes\)](#)



The areas that are most affected by Maoist activity also have high indigenous populations

[\(2010, Forbes\)](#)

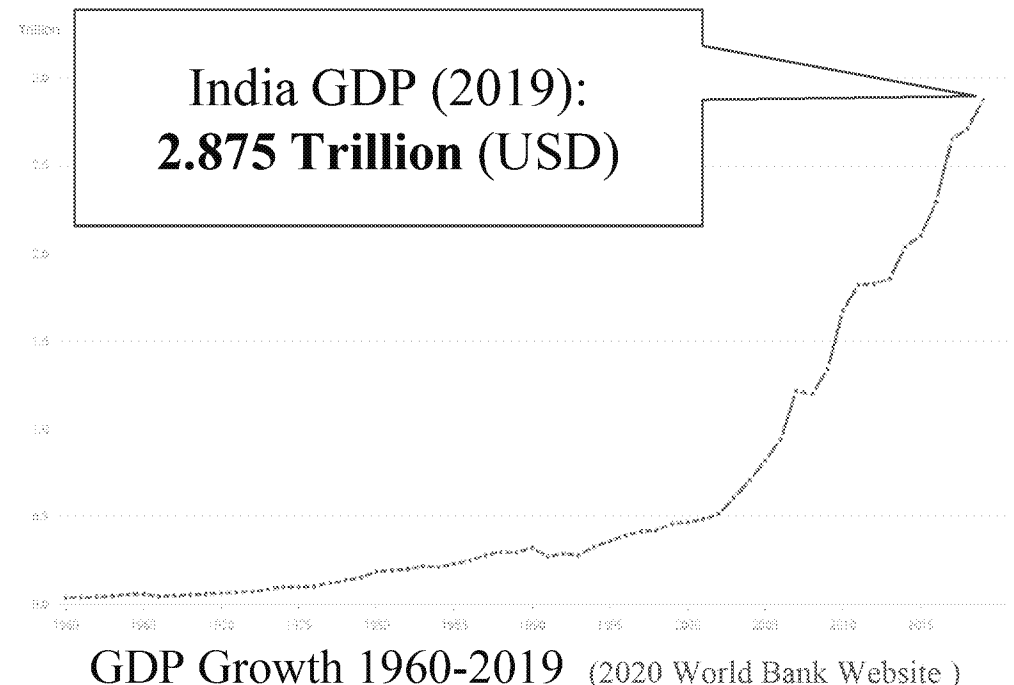
Economic Background: Growth

India has a young population; about two-thirds of total population is of working age ([IMF.org](https://www.imf.org))

Slightly less than half of the workforce is in **agriculture; services** are the major source of economic growth, accounting for nearly two-thirds of India's output but employing less than one-third of its labor force. ([CIA World Factbook](https://www.cia.gov))

Developing into an open-market economy. Economic liberalization measures, including industrial deregulation, began in the early 1990s. The country's growth, averaged nearly 7% per year from 1997 to 2017. ([CIA.gov](https://www.cia.gov))

Pandemic has slowed growth in 2020 to 3.1%—slowest since 2003. Asian Development Bank forecasts the economy will contract by 4% in FY2020 ([2020 The Hindu](https://www.thehindu.com))



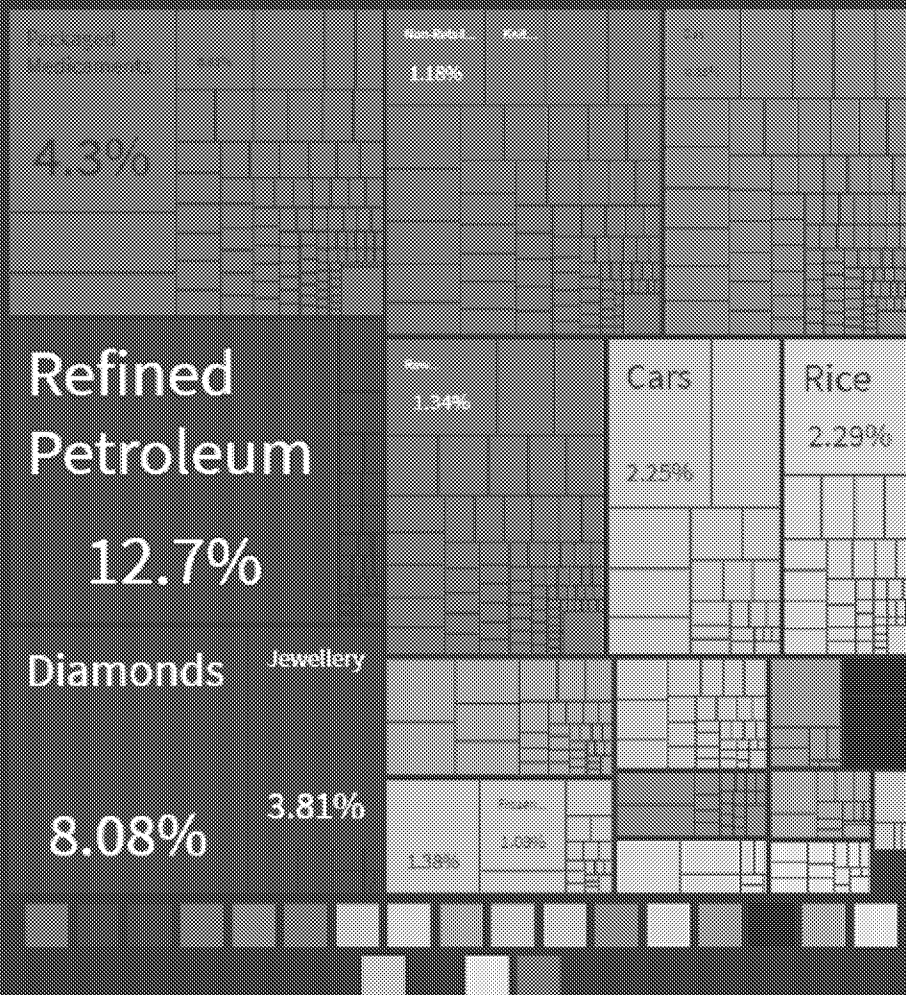
Global Exports (2018)

OEC

Observatory of
Economic Complexity

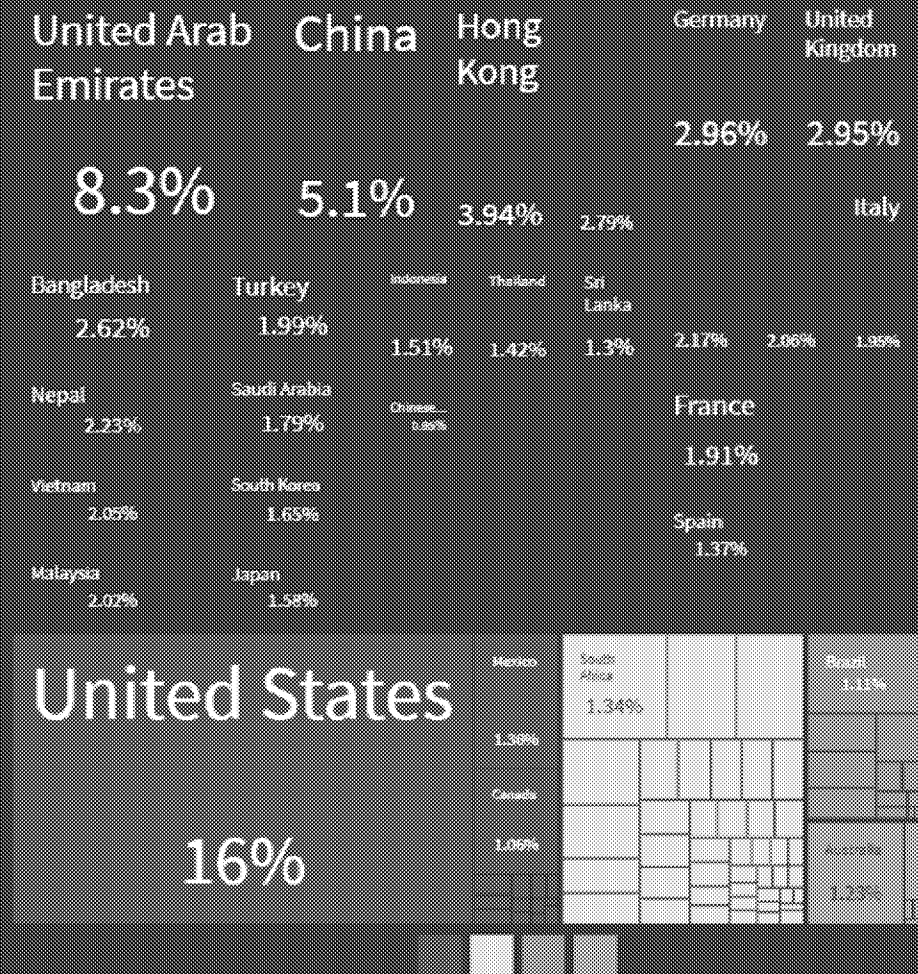
Exports (2018) - Click to Select

Total: \$326B



Destinations (2018) - Click to Select

Total: \$326B



Global Imports (2018)

OEC

Observatory of
Economic Complexity

Imports (2018) - Click to Select

Total: \$492B

Crude
Petroleum

20.6%

Gold

6.66%

Diamonds

5.06%

Coal
Briquettes

5.52%

Petroleum
Gas

3.43%

Telephones

1.95%

Gold mining

1.51%

Integrated Circuits

1.48%

Sea salt

0.84%

Palm Oil

1.03%

Planes...

1.13%

Vehicles...

0.84%

China

15.4%

South Korea

3.25%

Hong Kong

3.25%

Indonesia

2.95%

Nigeria

2.04%

South Africa

1.45%

Ghana

1.05%

Iran

2.72%

Singapore

2.72%

Japan

2.33%

United States

6.42%

Origins (2018) - Click to Select

Total: \$492B

Saudi
Arabia

5.35%

United
Arab
Emirates

4.84%

Iraq

4.24%

Switzerland

3.74%

Belgium-Luxembourg

1.99%

United Kingdom

1.38%

Italy

0.96%

Germany

3.02%

Russia

1.41%

France

1.31%

Qatar

1.96%

Kuwait

1.51%

Vietnam

1.42%

Malaysia

0.82%

Australia

3.85%

Benin

1.3%

Bilateral Trade with the United States

- **U.S. total bilateral trade (goods and services) with India** was \$142.8 billion in 2018, up 13.2% from 2017. Bilateral trade saw an average 7.4% annual growth rate for the previous five years. ([US-India Bilateral Trade Report](#))
- **Trade Agreement Negotiations:** In February 2020, Prime Minister Modi and President Trump concluded trade negotiations, which they hope will be “phase one” of a comprehensive bilateral trade agreement. ([India Ministry of External Affairs](#))
- **US-India Strategic Partnership Forum:** started in 2017, aims to strengthen economic and commercial ties through policy advocacy that will lead to driving economic growth, entrepreneurship, employment-creation, and innovation to create a more inclusive society. ([US-India Strategic Partnership Forum](#))
- **World Trade Organization:** In 2012 and 2019, India brought cases against the United States for its duties on Indian steel imports. In January 2020, the WTO ruled against the United States; both countries agreed to resolve dispute amicably. ([Jan 2020, Economic Times](#))
- **Regional Integration:** India withdrew in November 2019 from negotiations on the Regional Comprehensive Economic Partnership (RCEP) with China and 15 other Asia-Pacific nations.

Poverty Decreasing, Inequality Increasing

Poverty and inequality in India are pronounced and partially structurally ingrained.

(2020 BTI Transformation Index)

- India has the second-largest absolute number of poor worldwide, after Nigeria.
- Poverty is still widespread in rural areas and in the urban informal sector.

India has made **considerable progress in reducing poverty**. (2020 BTI Transformation Index)

- 60.4% were living below the \$3.20-per-day poverty line in 2011. By March 2019, only 47 million people (or 3.5% of the population) were living in extreme poverty (below \$1.90 per day).
- India's Human Dimension Index score has steadily improving over the past decade; India ranked 130 out of 189 countries in 2017.

There has been a **steady increase in income inequality since the 1990s**. (2020 BTI

Transformation Index)

- Inequalities are also evident across regions, across different social groups, as well as between skilled and unskilled workers.

Social exclusion continues to affect the traditionally marginalized lower castes (the so-called Scheduled Castes, SCs), ethnic minorities (the Scheduled Tribes, STs), and Muslims. (2020 BTI Transformation Index)

Economic transformation, or the lack of it in many cases, has led to the rise of extremism in various parts of India. (2009, World Directory of Minorities and Indigenous Peoples)

Social Background

Population: 1.326 billion, second most populous after China. (CIA World Factbook)

- **Urban:** 34.9%; **Rural:** 65.1%

Religions: Hindu 79.8%, Muslim 14.2%, Christian 2.3%, Sikh 1.7%, other and unspecified 2% (2011 est.) (CIA World Factbook)

- Tensions between religious communities negatively impact trust among citizens. India scores “very high” on the Pew Social Hostilities Index involving religion. (2020 BTI Transformation Index)

Languages:* 23 officially recognized languages, including English (CIA World Factbook)
121 languages are spoken by 10,000 or more people; more than 19,500 languages or dialects are spoken as mother tongues (Jul 1, 2018 The Hindu Businessline)

Discrimination against Dalits (lowest caste) remains a major issue; in recent years, discrimination has worsened against Muslims, scheduled tribe members. (2020 BTI Transformation Index)

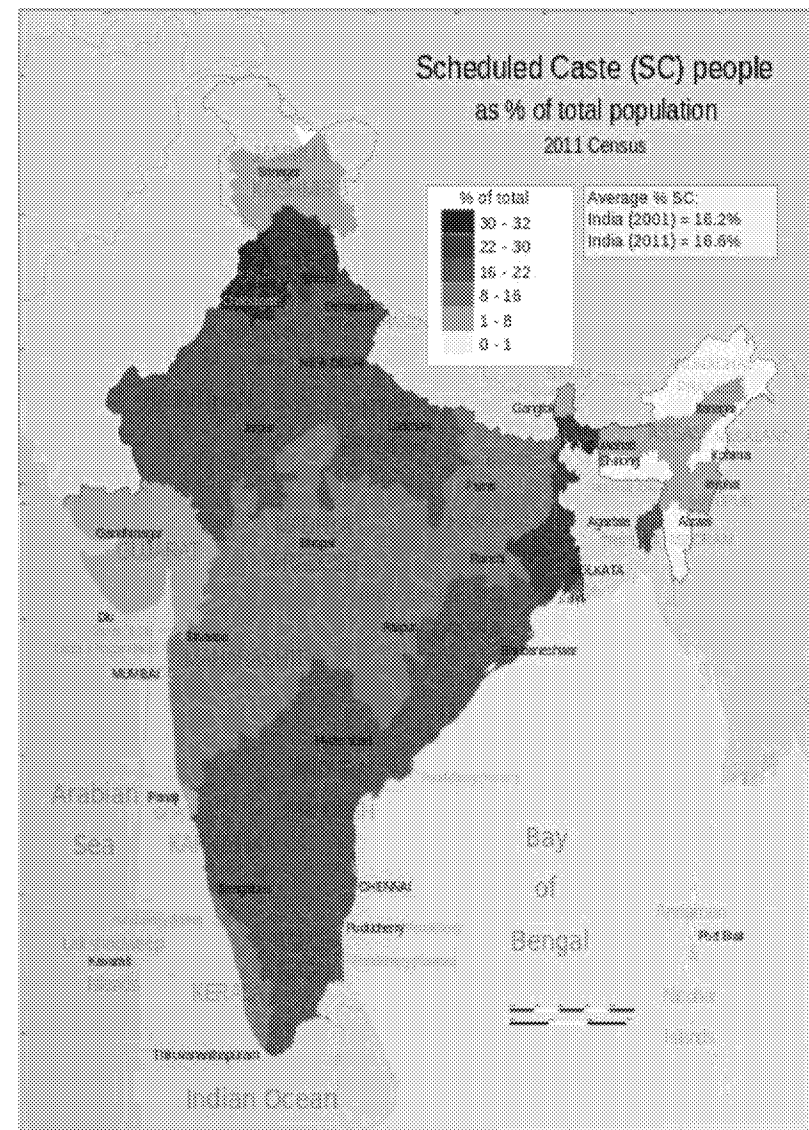
- Local groups collectively organize grassroots strikes and protests.
 - **Tribal groups’ resistance and protests** since colonial period.
 - **Local communities have become increasingly vocal, for example in resisting mining projects and land acquisitions.** These local organizations are sometimes manipulated for political purposes, but they often act in an autonomous manner to promote the interests of their communities.

Scheduled Castes (SC): 17% of the population, approx. 200 million persons

- These include Dalits (derived from Sanskrit for “oppressed,” also called Harijans or Untouchables), what society regard as the lowest SC. ([2019 HR Report](#))
- **Article 15 of Indian Constitution prohibits caste discrimination** ([Article 15 of Indian Constitution](#))
However, “**discrimination based on caste... remained prevalent, particularly in rural areas. ... there were numerous reports of violence and significant discrimination in access to services**”. ([2019 HR Report](#))
- Many Dalits experience malnourishment and most are bonded laborers. **Those who asserted their rights are often victims of attacks, especially in rural areas.** As agricultural laborers for higher-caste landowners, Dalits reportedly often work without monetary remuneration. ([2019 HR Report](#))

Castes

Scheduled Caste (SC) People



([Wikimedia Commons](#))

Scheduled Tribes (ST)

Scheduled Tribes make up 8% of the population.
The Indian government recognizes **705 ethnic groups** as “Adivasis” or indigenous peoples.

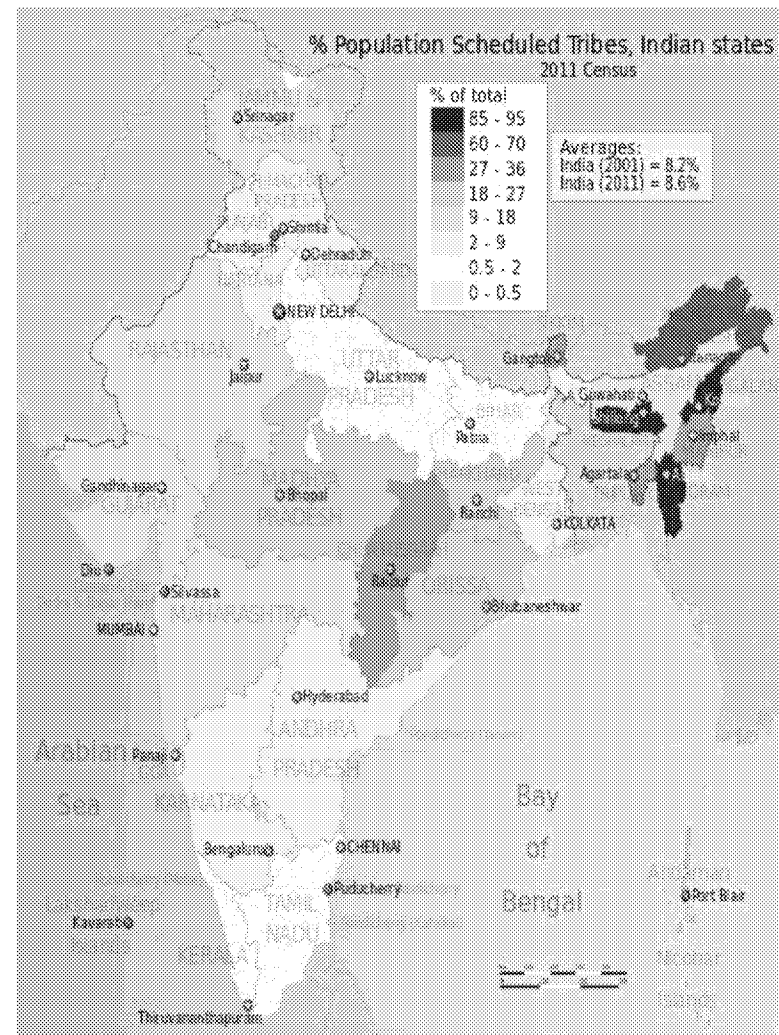
There is great diversity amongst the Adivasis. For example, Nagas have a distinct existence and differing political and constitutional aspirations from other Adivasi peoples.

Adivasis have **borne the brunt of development-induced displacement**. Adivasis rely on their lands and forests for their livelihoods. They have been frequently displaced from their lands by laws such as the [1957] Coal Bearing Areas (Acquisition and Development) Act, which does not require authorities to consult affected communities or seek the free, prior and informed consent of indigenous peoples.

([Amnesty International](#))

****India is not a party to ILO-169.**

06/29/20



([Wikipedia Commons, Population of Scheduled Tribes from 2011 Census](#))

“Provisions as to the Administration and Control of Scheduled Areas and Scheduled Tribes” (Schedule V)

Fifth Schedule of Article 244 of the Constitution of India

“These areas [predominantly inhabited by Adivasis -- indigenous people] came under the purview of the Scheduled Districts Act of 1874 and the Government of India (Excluded and Partially Excluded Areas) Order 1936. Following Independence, these areas were brought under the Fifth and Sixth Schedules respectively, and referred to as Scheduled Areas. Some other predominantly Adivasi areas were declared to be Scheduled Areas by the President subsequently.” [\(2016 Ministry of Tribal Affairs\)](#)

The President of India declares Scheduled Areas. The criteria followed are:

- “preponderance of tribal population;
- compactness and reasonable size of the area;
- under-developed nature of the area; and
- marked disparity in economic standard of the people.” [\(Indian Government Vikaspedia\)](#)

State Governors can make regulations for Scheduled Areas, such as:

- “prohibit or restrict the transfer of land by or among members of the Scheduled tribes in such area;
- regulate the allotment of land to members of the STs in such area;
- regulate the carrying on of business as money-lender by persons who lend money to members of the STs in such area.” [\(Indian Government Vikaspedia\)](#)

2006 Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act (FRA)

“The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of **Forest Rights**) Act, 2006 (FRA) legally recognises the rights of communities... to live in and from their forests and to protect and manage their lands. The Act was created to reverse the erosion of their traditional rights by forestry policies, encroachment on their lands by outsiders, and the take-over of their forests.” (2020 Survival International Briefing)

- Traditional forest dweller means “**any member or community who has for at least three generations prior to the 13th day of December, 2005 primarily resided in and who depend on the forest or forests land for *bona fide* livelihood needs.**” (2006 FRA)

The FRA envisions the forest rights committee of a village as the central unit to manage forest resources. The FRA recognises the rights of indigenous settlers and gives them the legal right to own land (up to four hectares) and right of settlement in these forests. (Sep 2019, The Quint)

Since its enactment in 2006 to September 2019: (Sep 11, 2019 The Quint)

- **Number of applications filed for settlement rights: 4.22 million**
- **Number of applications rejected: 1.94 million**

Immediate Challenges to FRA; FRA Amendments

As the FRA was being debated, **conservationists and foresters filed nine petitions challenging the FRA, two in the Supreme Court, slowing FRA implementation** [\(2020 Survival International Briefing\)](#)

- Group of **conservationists and wildlife organizations said FRA had led to forest fragmentation, threatening biodiversity and wildlife, causing deforestation** [\(Oct 2019, Reuters\)](#)
- The petitioners -- Wildlife First, Nature Conservation Society, and Tiger Research and Conservation Trust -- sought to strike down FRA and argued protection of forests and wildlife severely affected due to those who make ‘bogus’ claims under the Act and continue to encroach upon large tracts of forest lands. [\(Sep 2019, The Quint\)](#)

2009: As enacted, the FRA didn't say whether village assemblies had the right to give – or withhold – their consent to projects affecting their lands. A **2009 circular confirmed that written consent of gram sabha must be obtained before any changes to forest lands.** [\(2020 Survival International Briefing\)](#)

Dec 2012: Prime Minister's Office Directive that **gram sabha approval not needed in all cases.** MoEF, Ministry of Tribal Affairs accepted the change. [\(2020 Survival International Briefing\)](#)

2013 MoEF Notification **exempted “linear” projects (like roads, pipelines, and canals) from seeking the consent of gram sabhas in forest areas.** Ministry of Tribal Affairs claimed it was not consulted. [\(2013, Scroll.in\)](#)

Indigenous Consultations and Land Acquisition

2013 Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act (RFCTLARR or New Land Acquisition Act), entered into force on Jan 1, 2014, replacing Land Acquisition Act of 1894: [\(Press Info Bureau\)](#)

- **No acquisition of land shall be made in Scheduled Areas if possible** Sec. 41(1)
- Acquisition shall be done only as a last resort Sec. 41(2)
- **“Prior consent of the concerned Gram Sabha** [made up of all adult members of the village] or the Panchayats [elected village councils] or the autonomous District Councils, at the appropriate level in Scheduled Areas under the Fifth Schedule to the Constitution, as the case may be, shall be obtained” Sec. 41(3)
- **Affected parties will receive fair and timely compensation**

RFCTLARR “aimed for greater transparency by requiring the consent of affected families, and a social impact assessment study. But the **law exempts land acquired for public-sector coal mining.**” [\(2016 Reuters\)](#)

Despite these [Schedule V] protections, the power of **eminent domain** is often used by the Indian government to acquire and use tribal lands. Even when Schedule V protections are breached and the case is brought to court, the government often prevails. [\(2016, Ministry of Tribal Affairs, page 58\)](#)

- This is partly explained by the **ambiguity** of many Schedule V provisions, which can be selectively interpreted and manipulated by the government

Forced Evictions of Indigenous Communities

India is estimated to have the **highest number of people displaced annually as a result of ‘development’ projects.**

(2012, HLN Human Rights to Adequate Housing Report)

- Of those displaced **40% are tribals, another 40% consist of Dalits and other rural poor.**

Between 2012 and 2015, over 42,000 families underwent a forced eviction.

(2015, HLRN Report for the UN Human Rights Council)

Between 2017 and 2018, **forced evictions removed over over 460,000 people from their homes.**

(2017, HLRN Forced Evictions Report) and (2018, HLRN Forced Evictions Report)

- Development projects and wildlife and forest protection projects alone displaced over 208,000 people between 2017 and 2018.



Cheeta Camp, Mumbai – after the forced eviction and demolition of homes for ‘mangrove protection’ (2018, HLRN Report)



Draft National Forest Policy 2018;

Indian Forest Amendment Bill of 2019

Apr 2018: Government proposed draft National Forest Policy 2018 to give forest officials more power against encroachers, and earmarks more land for reforestation, making forest dwellers vulnerable to evictions, according to land rights groups. Land activists said if enacted, policy would make FRA largely ineffective. [\(4 Oct 2019, Reuters\)](#)

Mar 2019: MoEFCC circulates Indian Forest Amendment Bill to State governments for feedback; proposes to give more forest management power to bureaucracy, shift power away from village councils [\(2019, India Today\)](#)

- **Nov 15, 2019: MoEFCC withdraws bill** [\(2019 Down To Earth\)](#) [\(13 Jan 2020, The Quartz\)](#)

Tribal activists said proposed amendments, if enacted, would divest claims of forest dwellers over the right to own land and resources. The amendments sought: [\(11 Sep 2019, The Quint\)](#)

- To provide more power to Forest Department officials with the right to override the provisions under FRA, if needed
- To punish entire communities by denying them access to forests for offences committed by individual members
- If rights under FRA are seen as hindrances to conservation, then forest dwellers can be compensated by the state.

FRA: 2019 Supreme Court Decision, Aftermath

Feb 13, 2019: Supreme Court, on hearing the petitions from wildlife conservation groups, **orders 16 state governments to evict “illegal” dwellers and “encroachers.”** Close to two million forest-dwellers – **almost eight percent of India’s population, faced a threat of eviction from their habitat.** [\(Sep 11, 2019 The Quint\)](#)

-- Forest dwellers protested in the streets in large numbers. [\(Sep 11, 2019 The Quint\)](#)

-- During campaigning for elections to lower house of Parliament [held April 11-May 19, 2019], government asked Supreme Court to modify its order, saying FRA was a "beneficial" legislation and should be construed liberally to help "extremely poor and illiterate people" who are not well-informed of their rights and the procedure under the law. [\(Sep 11, 2019 The Quint\)](#)

Feb 28, 2019: Supreme Court stays its own order, stating that “the mighty and the undeserving” who encroached on forest land would not be shown mercy. Court is **reviewing whether the States conducted due process under FRA.** [\(2019, The Hindu\)](#)

- Court directed 21 states to file affidavits with details on how they had processed claims. Seventeen states filed affidavits; several stated local officials did not follow due process in rejecting claims (Claims wrongly rejected, claimants were not told why they were rejected or given time to appeal, as required by the law).

[\(Oct 2019, Reuters\)](#)

- Court stayed Feb 13 order until hearing on Nov 26, 2019 [\(Oct 2019, Reuters\)](#)

UN Urges No Forced Evictions; Aftermath of Supreme Court Decision

Jul 4, 2019: Three UN human rights experts* urge the Indian government to **prevent the potential eviction of up to nine million people**, mostly forest dwellers and members of scheduled tribes, concerned that millions of forest dwellers may lose access to their habitat, livelihoods and spiritual culture. ([July 4, 2019 OHCHR](#))

- “The government must provide the **necessary resources to conduct a transparent and independent review of the rejected claims** and to ensure no indigenous peoples are aggrieved.”

Aug 6, 2019: At hearing, Supreme Court observed that **nine states had not followed procedure in rejecting claims of tribal people** ([Sep 11, 2019 The Quint](#))

- Wanted to hear arguments on procedure to be laid down for dealing with the claim of tribal people over forest land

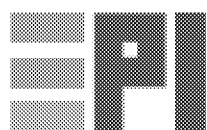
Sep 12, 2019: All states except Sikkim file affidavits; **central government “failed to argue in defense of the FRA”** when Solicitor General did not appear in court; **final arguments were set for Nov 26, 2019.** ([Sep 12, 2019 Down to Earth](#))

Nov 21, 2019: **2,500+ indigenous people protest in New Delhi** against any dilution of the FRA in days before final arguments ([Nov 22, 2019 Aljazeera](#)) ([Nov 24, 2019 The Citizen](#))

Major Environmental Concerns

- **Deforestation;**
- Soil erosion;
- Overgrazing;
- **Desertification;**
- **Air pollution** from industrial effluents and vehicle emissions;
- **Water pollution** from raw sewage and runoff of agricultural pesticides;
- Tap water is not potable throughout the country;
- Huge and growing population is overstraining natural resources;
- **Preservation and quality of forests;**
- **Biodiversity loss**

(CIA, The World Factbook)



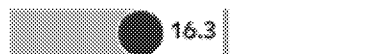
2020: rank 168 out of 180; score 27.6 out of 100

Issue Categories

Rank [/180]

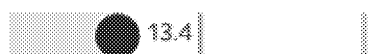
Environmental Health

172



Air Quality

179



Sanitation & Drinking Water

139



Heavy Metals

174



Waste Management

103



Ecosystem Vitality

150



Biodiversity & Habitat

148



Ecosystem Services

93



Fisheries

35



Climate Change

106



Pollution Emissions

145



Agriculture

108



Water Resources

94

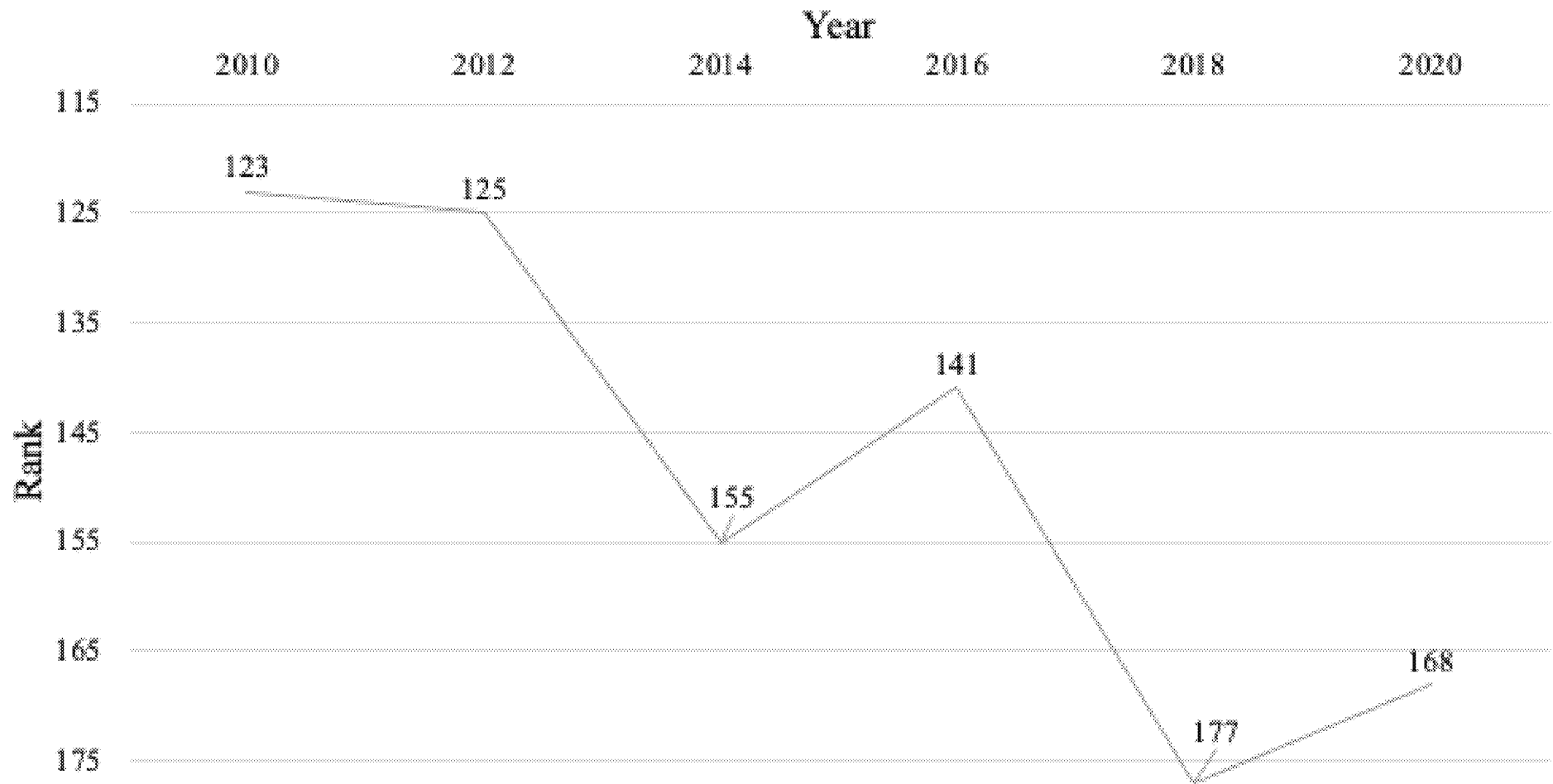


Regional Average

World Average

(2020 EPI India)

India's EPI Rank from 2010 to 2020



[\(2010 EPI Report\)](#)

[\(2012 EPI Report\)](#)

[\(2014 EPI Report\)](#)

[\(2016 EPI Report\)](#)

[\(2018 EPI Report\)](#)

[\(2020 EPI India\)](#)

2018: Air Quality Almost World's Worst; 2016 WHO: 14/15 Most Polluted Cities in India

India ranks 177 out of 180 in terms of air quality in the 2018 Environmental Performance Index.
(2020, BTI Country Report - India)

Air pollution led to 1.24 million deaths (12.5% of the total) recorded in the country during 2017 alone (NRDC, 2019)

Country	City	PM2.5 ($\mu\text{g}/\text{m}^3$)
India	Kanpur	173
India	Faridabad	172
India	Varanasi	151
India	Gaya	149
India	Patna	144
India	Delhi	143
India	Lucknow	138
Cameroon	Bamenda	132
India	Agra	131
India	Muzaffarpur	120
India	Srinagar	113
India	Gurgaon	113

(2018, Geospatial World)

MegaBiodiverse Country

India is a megadiverse country. With only 2.4% of the world's land area, India accounts for 7-8% of all recorded species, including over 45,000 species of plants and 91,000 species of animals. [IUCN website](#)

- Its diverse physical features and climatic conditions led to a variety of ecosystems such as forests, wetlands, grasslands, desert, coastal and marine ecosystems, which harbour and sustain high biodiversity and contribute to human well-being.
- Four of 34 globally identified biodiversity hotspots can be found in India: The Himalayas, the Western Ghats, the North-East, and the Nicobar Islands.

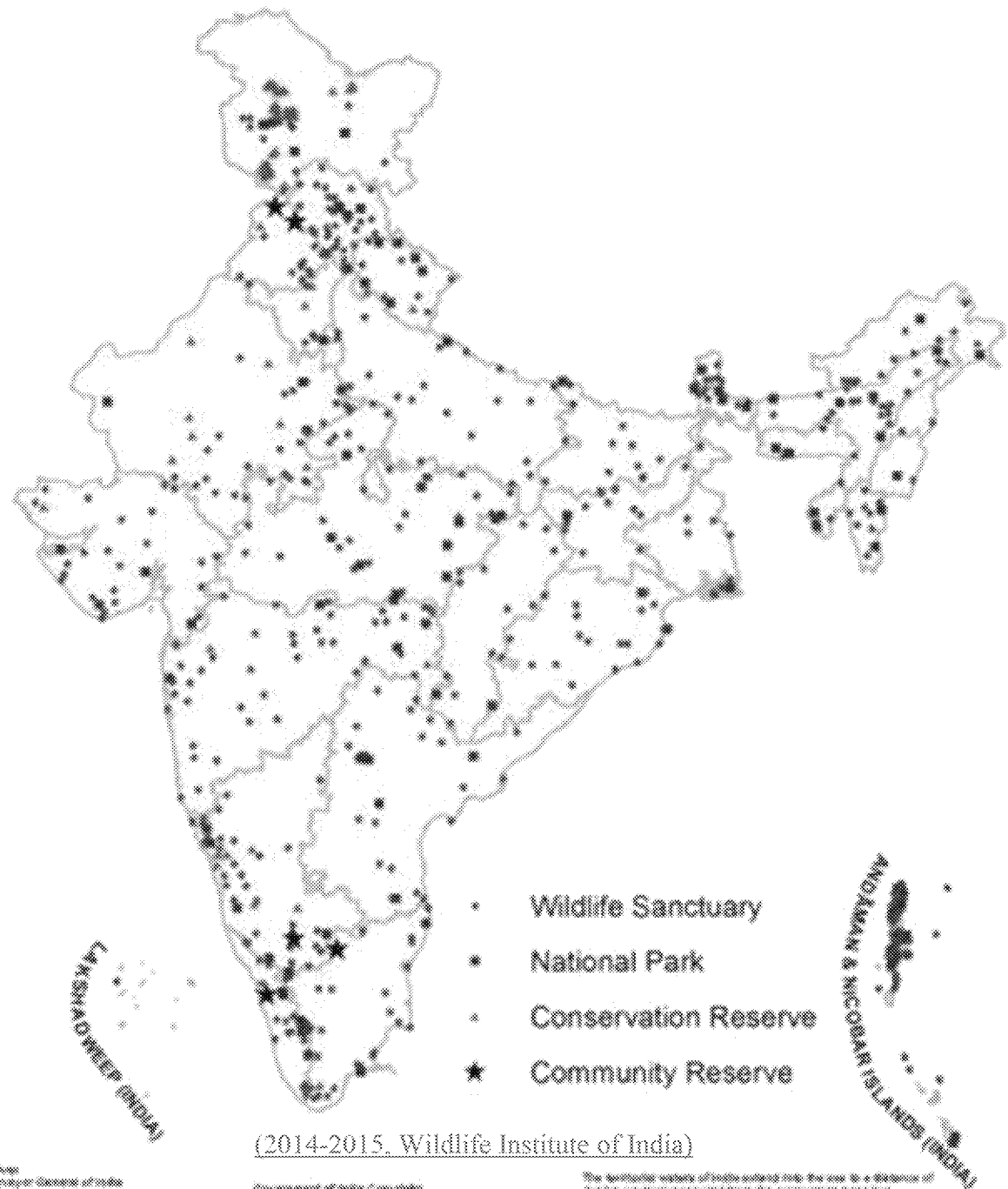
India is the **eighth most biodiverse country in the world**. [\(2016, Mongabay\)](#)

- With a large landmass covering a range of ecosystems, India scores well across the board in terms of species richness. Ranks especially high on reptiles and birds; some of its best known species are charismatic megafauna: elephants, rhinos, lions, tigers.

EARTH'S MOST BIODIVERSE COUNTRIES									
COUNTRY	Birds	Amphib	Mammals	Reptiles	Fish	Vascular plants	BioD Index	Rank	BioD index/ Land area
Brazil	17.6%	13.6%	11.8%	7.9%	13.7%	20.8%	0.85	1	0.10
Colombia	18.3%	10.2%	8.1%	5.9%	6.2%	19.0%	0.68	2	0.57
Indonesia	16.2%	4.6%	12.2%	7.1%	14.1%	10.9%	0.65	3	0.34
China	12.5%	5.5%	10.0%	4.7%	10.1%	11.9%	0.55	4	0.06
Mexico	10.9%	5.0%	9.5%	8.9%	7.9%	9.7%	0.52	5	0.26
Peru	18.1%	7.6%	8.5%	4.7%	4.7%	6.3%	0.50	6	0.41
Australia	7.1%	3.2%	6.4%	10.1%	14.7%	5.8%	0.47	7	0.06
India	11.9%	5.2%	7.5%	6.7%	7.4%	6.9%	0.46	8	0.14

Protected Areas

As of 2019, 5.02% of country was designated as protected areas, comprising 104 national parks, 551 wildlife sanctuaries, 88 conservation reserves and 127 community reserves. (2019, Wildlife Institute of India)



Government Environmental Institutions

Article 48A added to Constitution in 1976: "State shall endeavour to protect and improve the environment and to safeguard the forests and wildlife of the country."

- In a landmark 1995 case *Consumer Education and Research Centre vs. Union of India*, Supreme Court “would give appropriate directions to the employer, be it the State or its undertaking or private employer to **make the right to life meaningful**; to prevent pollution of work place; **protection of the environment**; protection of the health of the workman or to preserve free and unpolluted water for the safety and health of the people.” (1995, CERC vs. UoI)

Ministry of Environment, Forest and Climate Change (MoEFCC), created 1980 (1980-1985 Federal Department of Environment; 1985-2014 Ministry of Environment and Forests). Responsible for “planning, promotion, coordination and overseeing the implementation of India’s environmental and forestry policies and programmes.”

(Moef.gov.in)

- **1984 Bhopal gas leak (caused the deaths of ~3,000 people), led to expanded Ministry role** through the Environment Protection Act of 1986 (2005, National Institutes of Health)
- Wildlife Institute of India is an autonomous institution of the MoEFCC.

National Green Tribunal - Best Practice

The **National Green Tribunal Act of 2010** created the **National Green Tribunal (NGT)** for “**effective and expeditious disposal of cases relating to environmental protection and conservation of forests and other natural resources.**” ([National Green Tribunal Website](#))

- “specialized body equipped with the necessary expertise to handle environmental disputes involving multi-disciplinary issues.”

NGT charged with “eliminating procedural problems that may prevent environmental plaintiffs from bringing a lawsuit” ([2015 Strengthening Environmental Rule of Law](#))

NGT’s principles of sustainable development, environmental enforcement have “proven to be embarrassing to those committed to a fast-track economic development strategy.” ([2018, Mapping the Power Struggles of the National Green Tribunal](#))

- MoEFCC, state governments and pollution control boards, are “unaccustomed to being questioned in a probing, informed, and systematic manner or have their decisions scathingly challenged or overturned in a public forum.”

NGT is limited as a judicial, not executive body; it cannot enforce its own orders ([2018, Independent Environmental Regulations in India \[locked\]](#))

The NGT is cited as an international best practice. ([2015 UNEP Bali Implementation Guide, pg 115](#))

- “**incorporating a number of best practices ... and has become a major arbiter of some of the most pivotal environmental battles in India.**” ([2018, Mapping the Power Struggles of the National Green Tribunal](#))

Environmental Impact Assessments (EIAs); Public Hearings - Best Practice

MoEF's Environmental Impact Assessment (EIA) Notification of 1994 required proponents of certain projects to submit an EIA to seek MoEF Environmental Clearance (EC). (2006, Centre for Science and Environment)

MoEF EIA Notification of 2006 **requires EIAs for more projects, shifts more responsibility to state governments for clearing projects**, depending on the project's size and capacity. (2006, Centre for Science and Environment)

- EIAs mandatory for various projects such as mining, thermal power plants, river valley, infrastructure (road, highway, ports, harbours and airports) and industries including very small electroplating or foundry units.

EIA process includes: Screening; Scoping; Impact analysis; Mitigation; Reporting; Review of EIA; Decision-Making; Post monitoring. (2006, Centre for Science and Environment)

UNEP Bali Implementation Guide Cites India's Public Hearings as Best Practice: Procedures for public hearings specify, a “statement of the issues raised by the public and the comments of the applicant shall also be prepared in the local language and in English and annexed to the proceedings” of public hearing. Indian regulations further require the proceedings of the public hearing to be conspicuously displayed at local government offices and posted on the Internet.

Number, Type of Recent MoEF Environmental Clearances

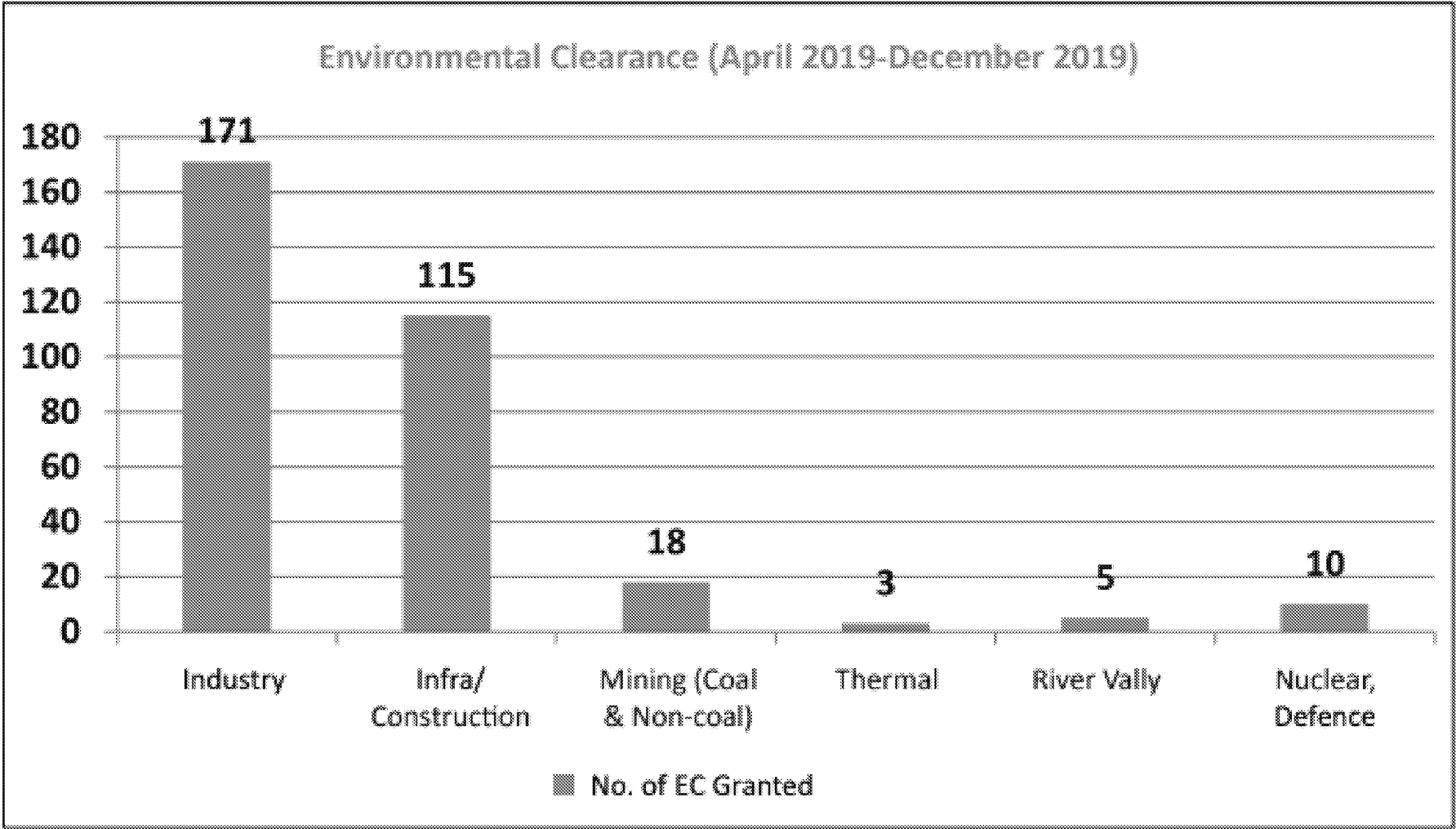


Fig.1-Environmental Clearance (April 2019 - December 2019) Total- 322

(MoEFCC Annual Report 2019-20)

MoEF March 2020 Draft New EIA Notification

In March 2020, the MoEF published a draft of a new EIA Notification, which was criticized for being industry-friendly and weakening the role of the public consultation process. Some specific grievances include (June 27, 2020, Citizen Matters) :

- Post-facto granting of EIA approval; [EIA absence] can be waived by fine;
- Shortened public consultation hearings;
- Exemption of several large industries from public hearings (B2 category);
- Basis for classification of projects is very normative; classification depends only on project's size and capacity, not its impact on environment and health of population.
- Declaration of some areas as 'economically sensitive areas' without public hearing or environmental clearance;
- Several red, orange toxic industries could operate within 5 km of a Protected Area;
- Increased validity of the environment clearances for mining projects (50 years vs 30 years currently) and river valley projects (15 years vs 10 years currently); and
- Industries can submit just one compliance report a year rather than two.

The MoEFCC extended public comment deadline from May 22 to June 30 due to the coronavirus lock-down; didn't intend to extend the deadline further as it **received more than 30,000 comments**. Delhi High Court on June 30 extended the deadline again to August 11, 2020. (2020, Hindustan Times)

Lack of Compliance with Environmental Laws

India's limited enforcement and compliance with environmental law is due to laws that **“do not give the government civil enforcement authority or a range of enforcement sanctions short of shutting-down pollution sources”**; the gap in the law **“inhibits effective enforcement”*** (2019, UNEP Environmental Rule of Law Report)

- Low fines are often **written off as a “cost of doing business”**

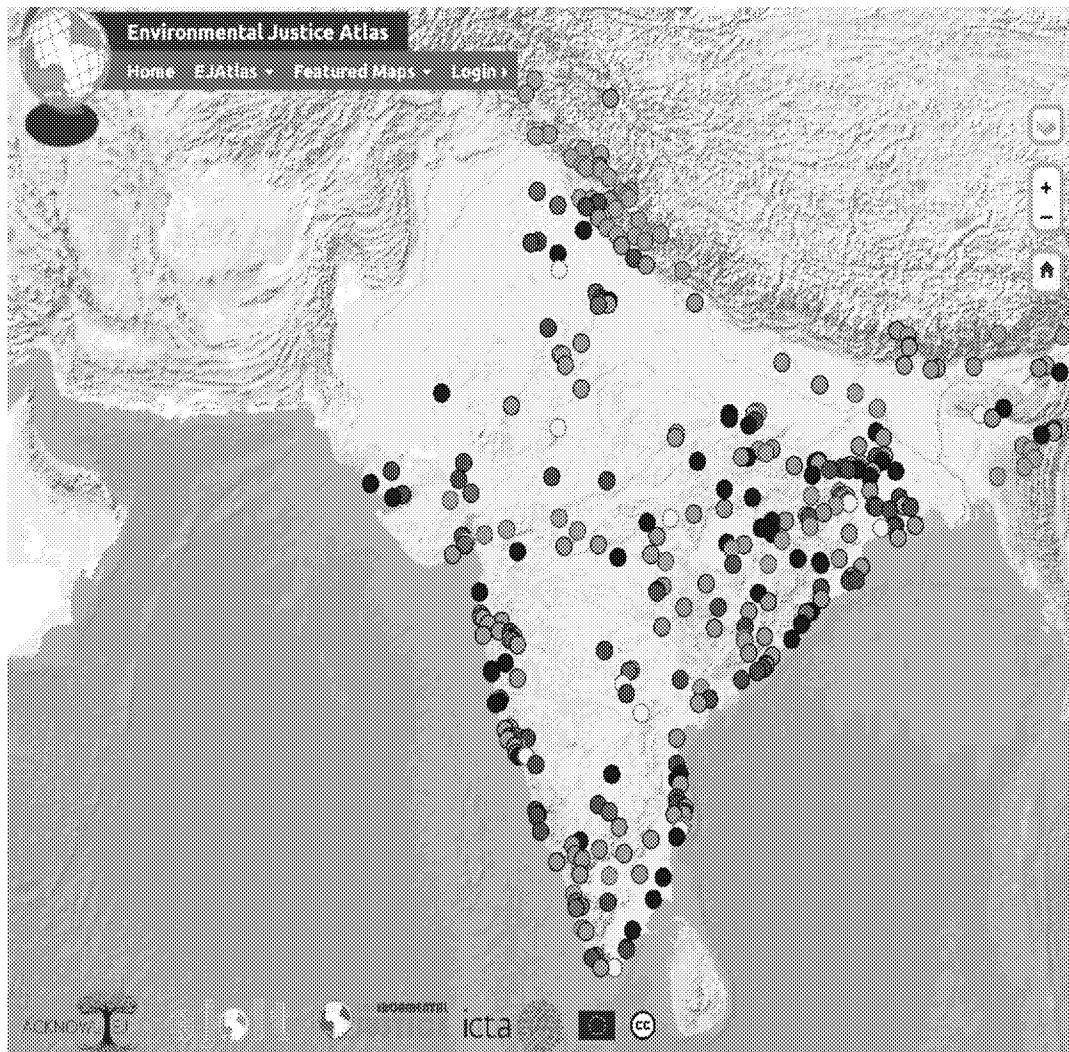
Small to medium-sized companies (SMEs) often have out-of-date processes, making curtailing emissions more costly... Stringent enforcement might put SMEs out of business creating mass unemployment, something the government wants to avoid. Government is reluctant to come down too hard on SMEs that have lifted so many Indians out of poverty. (2015, Journal of International Business and Law)

Many Indian air and water pollution regulations are similar to those in other industrialized countries; **lack of enforcement** has upset the global business community as it **seems to provide Indian businesses an important cost advantage** (Ord, 2009) (2015, Journal of International Business and Law)

In 2006, India had **over 200 environmental protection laws. 27% of highly polluting industries not in compliance**; increase from 16% in 2004. (2006, OECD Environmental Compliance and Enforcement in India)

- **“absence of strong political will to address environmental challenges”**
- **Available tools for non-compliance ineffective because penalties are too low, fail to consider full economic and environmental impacts**

335 Environmental Conflicts (highest, followed by Brazil and China)



<https://ejatlas.org/country/india>

- Nuclear
- Mineral Ores and Building Extractions
- Waste Management
- Biomass and Land Conflicts
- Fossil Fuels and Climate Justice
- Water Management
- Infrastructure and Built Environment
- Tourism Recreation
- Biodiversity Conservation Conflicts
- Industrial and Utilities Conflicts

Why Highest Number of Cases

Dec 2015 article in *Current Science*, V. V. Krishna* explained why India has most conflicts:

- **thrust on industrialisation,**
- **mining for natural resources**
- **exploitation of environmental governance loopholes**

As of 2016

What Drives India's Environmental Conflicts

Water management

60

Fossil fuels and climate justice/energy

48

Industrial and utilities conflict

37

Infrastructure and built environment

19

Mineral ores and building material extraction

18

Waste management

17

Nuclear

12

Biomass and Land Conflicts (Forests, Agriculture and Livestock Management)

8

Tourism and recreation

4

Biodiversity and conservation conflict

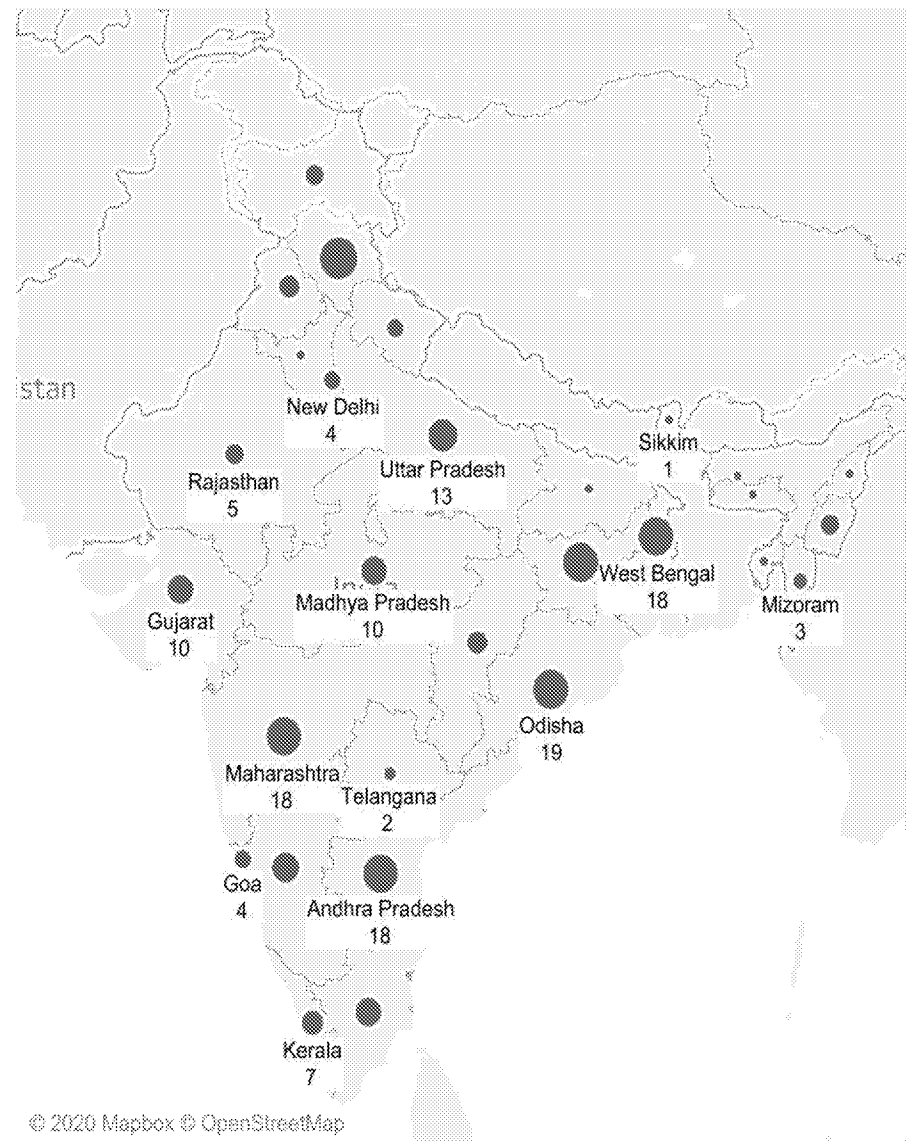
1

Source: [Global Environmental Justice Atlas](#) [Get the data](#)

Created with [Datawrapper](#)

(2016, India Spend)

Environmental Conflicts In India, By State..



© 2020 Mapbox © OpenStreetMap

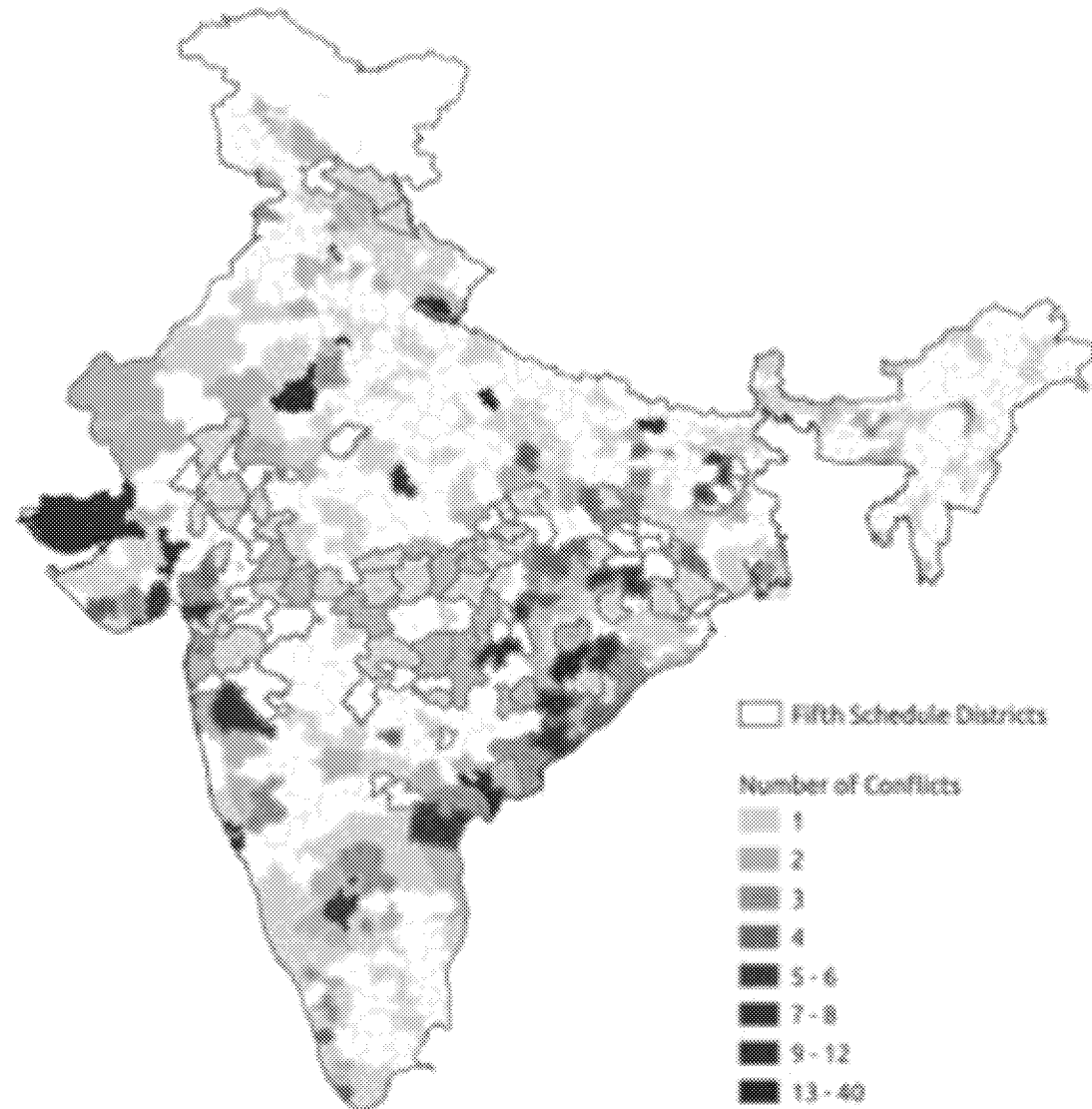
Land and Environmental Conflicts

In Feb 2020, Oxfam reported 703 ongoing land conflicts affecting more than 6.5 million people, 2.1 million hectares of land, and 13 trillion rupees (\$174.25 billion) in investment.

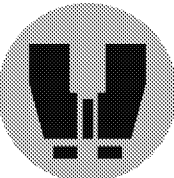
- **60% of all mining-related conflicts are in Schedule V districts**
- 43% involved infrastructure projects
- **68% involved common lands (forests or non-forests)**

Districts affected by left-wing extremism account for 17% of land conflicts

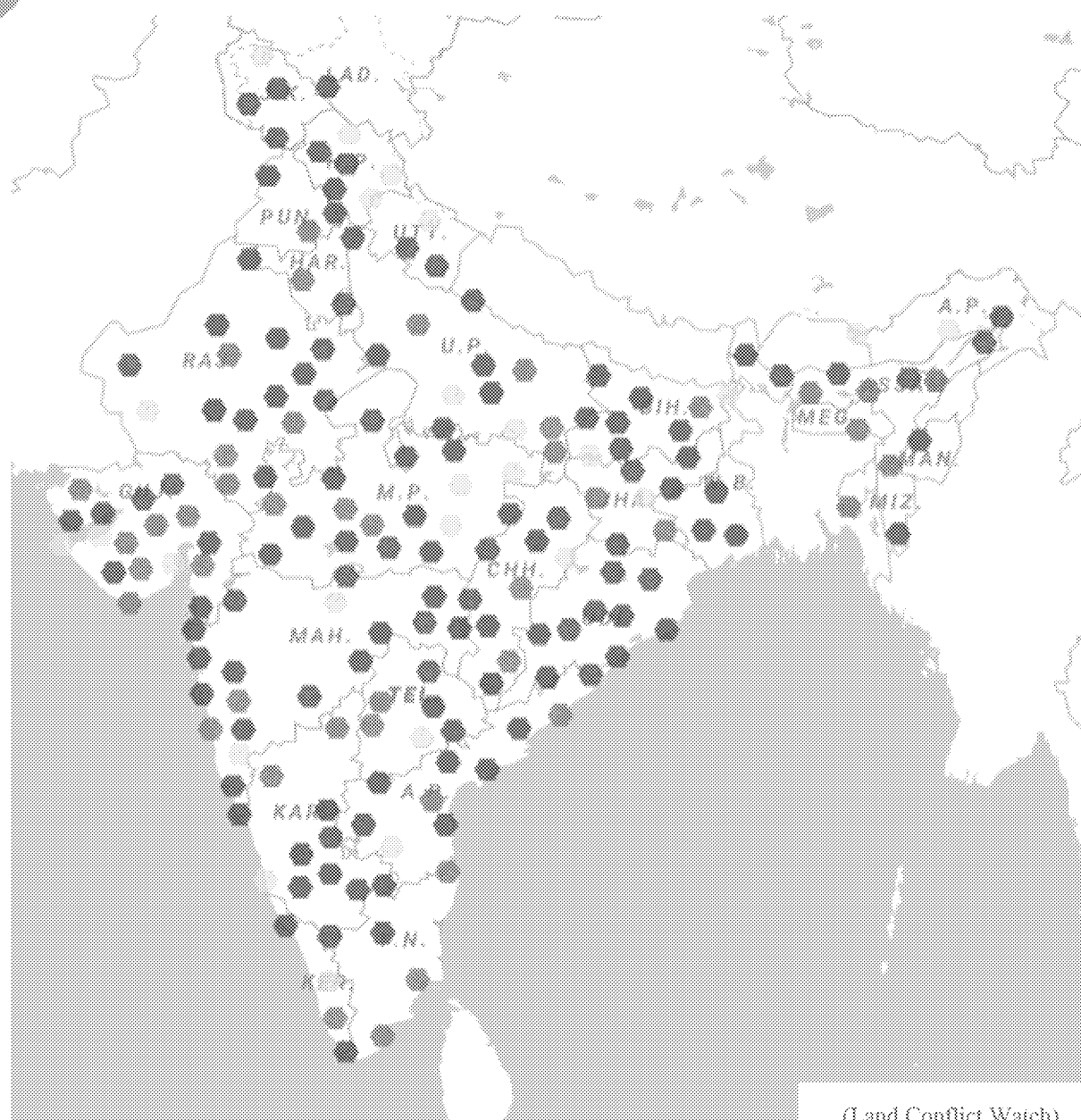
(Feb 2020, Oxfam India)



District-wise Distribution of Number of Land Conflicts and the Schedule V Districts



Land Conflict Watch*



778

Total Conflicts
Reported

6.9M

People Affected by
Land Conflicts



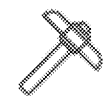
Infrastructure



Industry



Power



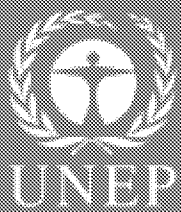
Mining



Land Use



Conservation
and Forestry



Best Practice: Environmental Education

The **UN Environment Programme (UNEP)** cites **India** as a **best practice for environmental education** in the *2015 Implementation Guide for the UNEP Bali Guidelines for the Development of National Legislation on Access to Information, Public Participation and Access to Justice in Environmental Matters* (Bali Implementation Guidelines) for Guideline 7 “States should provide means for and encourage effective capacity-building, both among public authorities and the public, to facilitate effective access to environmental information.”

Renowned advocate M. C. Mehta convinced the **Supreme Court of India in 1991** that the **State had a legal duty** under the Indian constitution and laws **to create public awareness of environmental issues**. The Court consequently ordered public service announcements on the environment to be made through public media, specifically at cinemas, and over national radio and television. The Supreme Court’s order to implement environmental education courses was carried out only gradually, but over time it resulted in a model syllabus adopted by the National Council for Educational Research and Training.

(2015 UNEP Bali Implementation Guide, p 57)



Best Practice: Community Environmental Monitoring

The Community Environmental Monitoring (CEM) project brings together pollution-affected communities and enables them to voice their concerns and demands by aiding them with technical and legal resources and expertise.

- Educates affected and unaffected communities on the importance of the environment and its potential impact on health and livelihood, especially youth
- Deploys simple and inexpensive tools in rural communities to monitor their own environment (for example, bucket technique of monitoring pollution- a trained volunteer draws polluted air sample in a TEDLAR bag, seals and sends to laboratory for gas chromatographic analysis of toxic components)
- Equips community members with skills on documentation of pollution, air and water sampling
- Conducts health surveys of pollution-impacted villages
- Pressures government departments to bring compliance to existing laws

CEM started in 2004* in SIPCOT, a 200-hectare industrial estate in Cuddalore, Tamil Nadu, that houses 18 companies that manufacture pesticides, pharmaceuticals, chemicals, plastics, dyes, and textiles. CEM now partners with NGOs in remote areas of Chhattisgarh and Himachal Pradesh.**

Environmental NGOs and Defenders

Human Rights, Environment NGOs Report Reprisals

2010: Foreign Contributions Regulation Act (FCRA) “prohibits the acceptance and use of foreign contributions for any activities detrimental to the national interest, including matters connected with or incidental to such activities. The implementation of the law is regulated by the ‘Foreigner’s Division’ (FCRA Wing) of the Ministry of Home Affairs.” [\(ICNL.org\)](#)

The Freedom of Association section of **every State Department Country Report on Human Rights Practices in India (Human Rights Report)** from 2010-2019 includes **Indian NGO concerns about arbitrary implementation of FCRA in order to intimidate internationally funded organizations.** [\(1996-2019 Country Reports on Human Rights, DoJ\)](#)

2015: Government cancels Greenpeace India’s FCRA registration; since **Greenpeace** is no longer eligible for foreign funding, it relies solely on domestic contributions [\(2018, India Today\)](#)

June 2016: UN Special Rapporteur on HR Defenders, Michael Forst, expressed alarm about FCRA’s effect on CSOs advocating “priorities, which may different from those back by the Government” [\(June 16, 2016 OHCHR\)](#)

- The Centre for Promotion of Social Concern (CPSC or People’s Watch) under watch of Indian Home Ministry since 2016; license revoked in Oct 2016. [\(2018, The Wire\)](#)
 - Executive Director, Henri Tiphagne, assisted with India’s periodic review by UN special rapporteurs. [\(2018, The Wire\)](#)

2018: Reprisals Grow HR/Environment NGOs

Jan 1, 2018: Home Ministry revokes NGO Center for Social Development's (CSD) license for reporting on uranium mining in Meghalaya. [\(2018, The Wire\)](#)

- CSD reports harassment from Central Reserve Police Force, a federal law enforcement agency under the Ministry of Home Affairs

2018: State Department's Human Rights Reports highlight NGO concerns about increase of random FCRA compliance inspections.

- “On October 25, the Enforcement Directorate (ED), a government agency that investigates financial crimes, **raided the premises of Amnesty International India's Bengaluru office** and froze its bank accounts on suspicion that it had violated foreign funding guidelines.” [\(2018, State Department Human Rights Report\)](#)
- “The searches came days after the **ED searched the premises of environmental nonprofit Greenpeace India in Bengaluru on October 12**, also for allegedly violating foreign funding rules.” [\(2018, State Department Human Rights Report\)](#)

December 2018: Three UN special rapporteurs' letter to Indian government expresses serious concerns at the “smear campaign” and actions taken against Amnesty International India and Greenpeace, saying the ability to access foreign funding is an integral part of the right to freedom of association. [\(Dec 20, 2018, OHCHR\)](#)

2019 Reprisals Grow of Human Rights, Environment NGOs

2019: As in 2018, State Department's Human Rights Reports **convey NGO concerns that random FCRA compliance inspections were increasing.** Also states some NGOs alleged they were targeted as a reprisal for their work on “politically sensitive” issues, such as human rights or environmental activism. ([2019, State Department Human Rights Report](#))

- “The 2018 raid on Amnesty came days after the Enforcement Directorate searched the premises of environmental nonprofit Greenpeace India in Bengaluru, also for allegedly violating foreign funding rules”

September 9, 2019*: India is included in the UN's “Cooperation with the United Nations, its representatives and mechanisms in the field of human rights” report; mentions:

- Raids on Greenpeace and Amnesty International India mentioned
- Surveillance of Center for Social Development staff
- Non-renewal of People's Watch FCRA license

September 2019: Civicus report on **human rights defenders (HRDs), particularly environmental and Right to Information (RTI) activists and journalists, continue to be targeted by state and non-state actors for exposing abuses.** ([Sep 10, 2019 Civicus](#))

Aug 2016: UNSR Ranks India in Top Ten Most Dangerous Countries for EHRDs

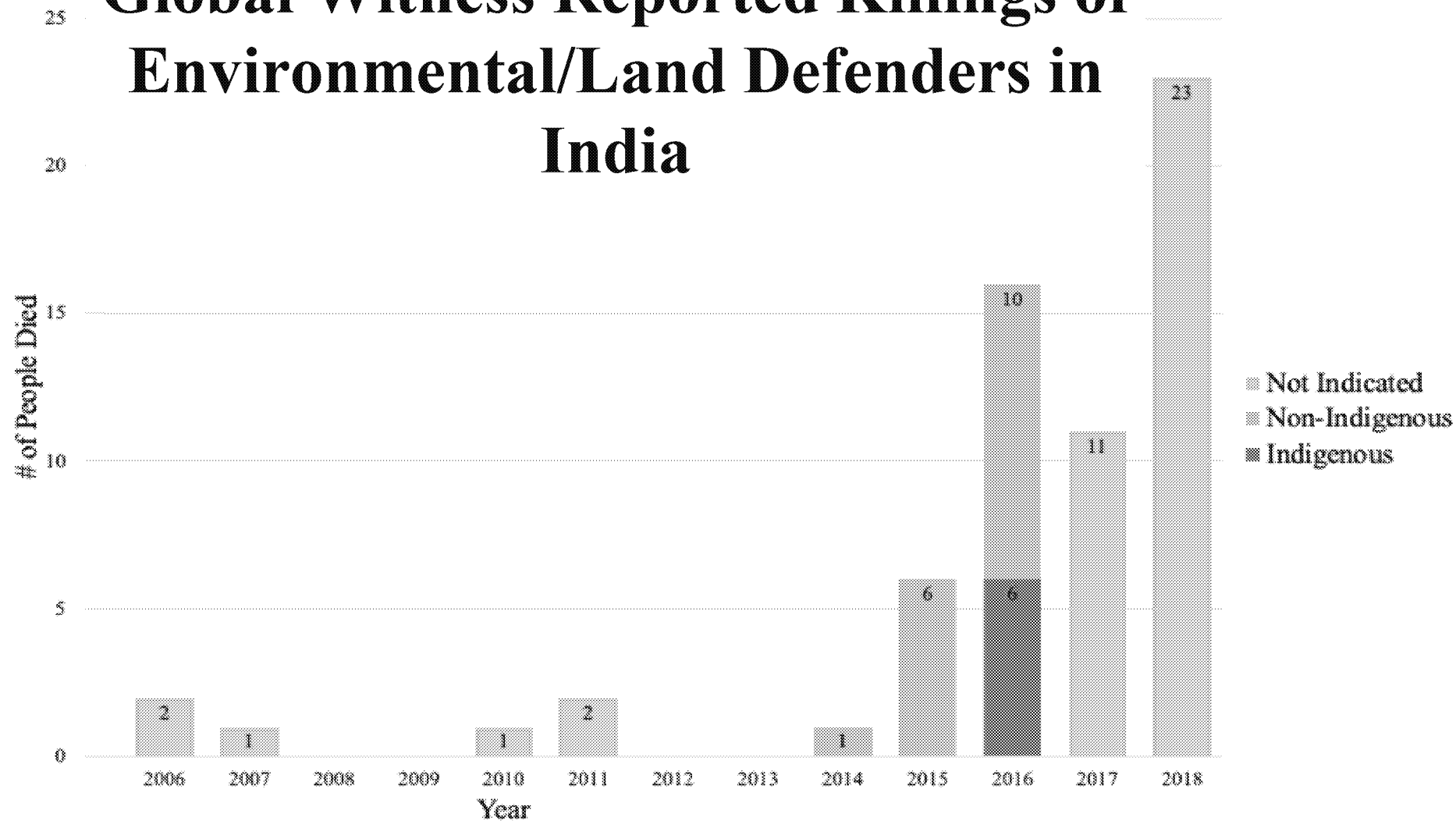
UN Special Rapporteur on the Situation of Human Rights Defenders Michel Forst, “Situation of human rights defenders” (August 3, 2016) ranks India among the 10 most dangerous countries for environmental human rights defenders (EHRDs) ([United Nations Human Rights](#))

“36. According to civil society reports, corroborated by the communications sent by the Special Rapporteur in the last two years, the most dangerous countries for environmental human rights defenders were Brazil, Cambodia, Colombia, Guatemala, Honduras, **India**, Mexico, Peru, the Philippines and Thailand. There are indications that some African countries are facing similar challenges, even if they were not documented and publicized sufficiently.”

The most dangerous countries for EHRDs :



Global Witness Reported Killings of Environmental/Land Defenders in India



***Note:** Global Witness (GW) updates numbers as new information becomes available; graph is not from Global Witness, but based on its reports.*

2006-2013: ([2002-2013, Global Witness Report](#))

2014: ([2014, Global Witness Report](#))

2015: ([2015, Global Witness Report](#))

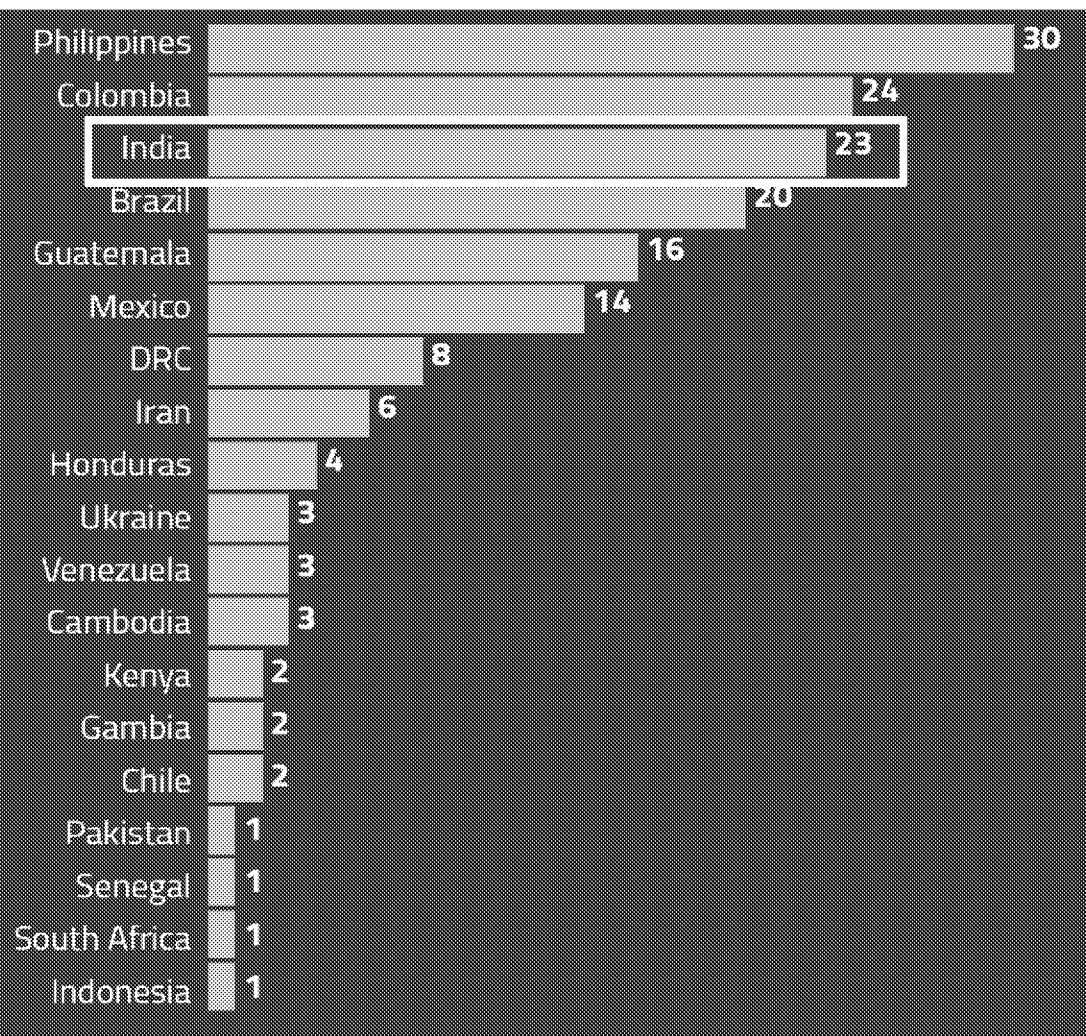
2016: ([2016, Global Witness Report](#))

2017: ([2017, Global Witness Report](#))

2018: ([2018, Global Witness Report](#))

Global Witness: Third in 2018; Sixth in 2017

2018



2017



(2018, Enemies of the State?)

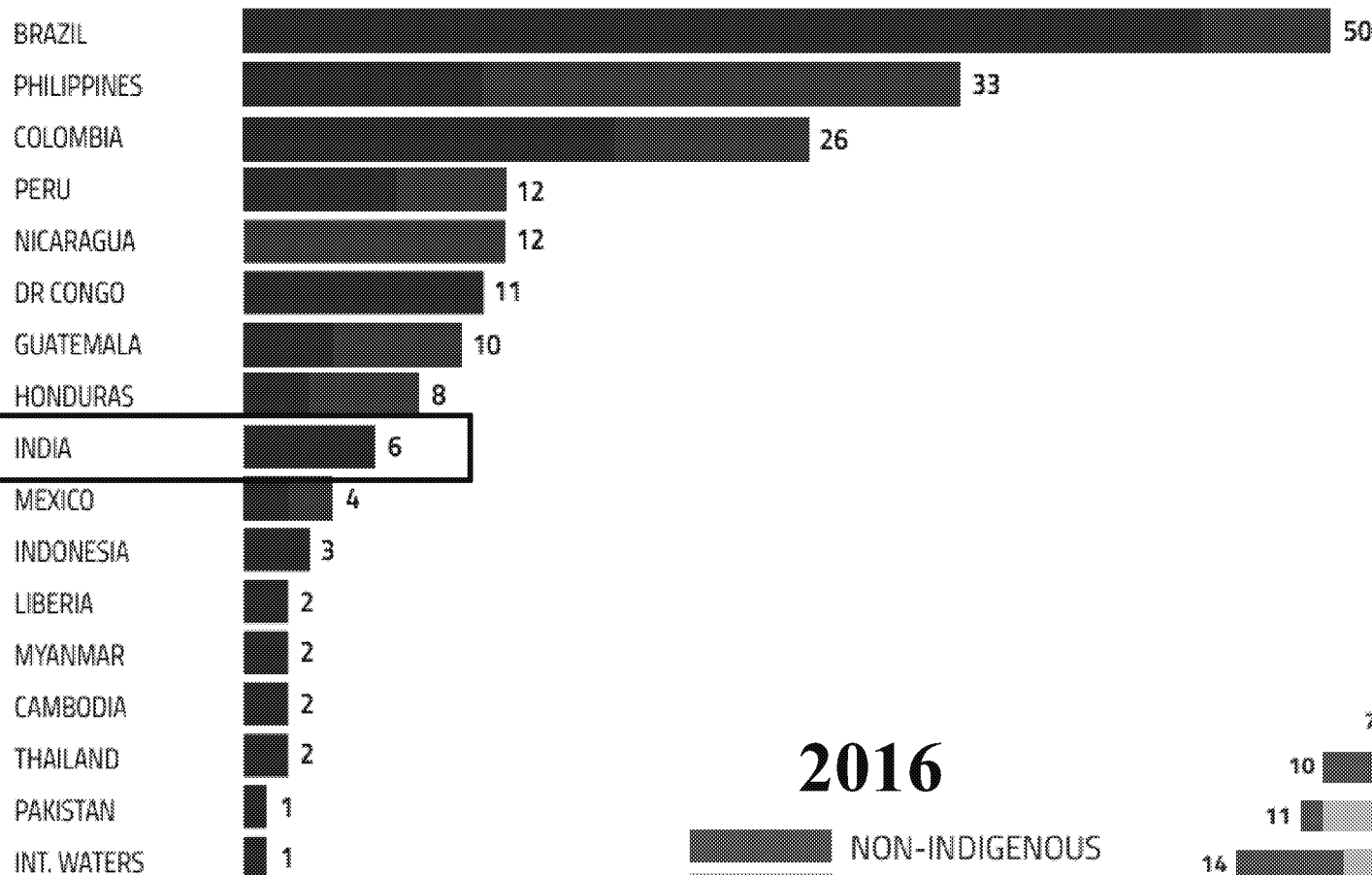


(2017, Global Witness)

Global Witness: Fourth in 2016; Ninth in 2015

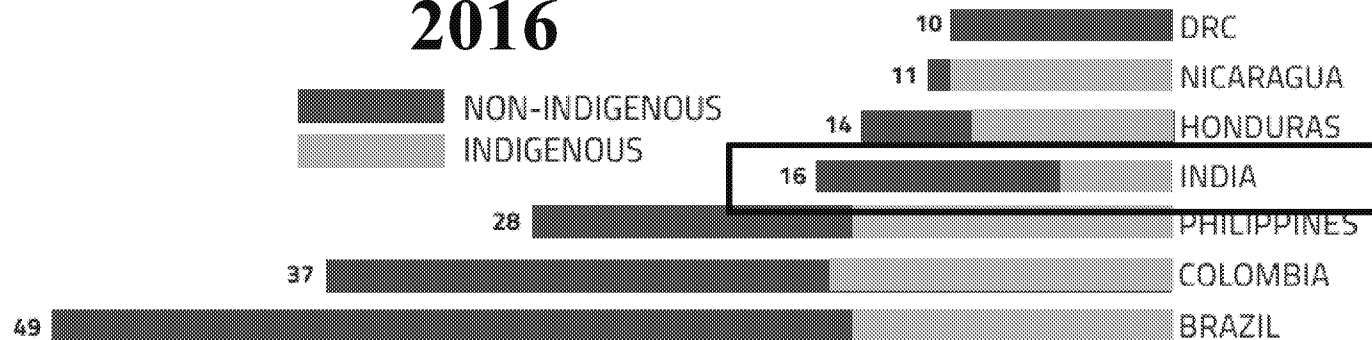
2015

NON-INDIGENOUS
INDIGENOUS



2016

NON-INDIGENOUS
INDIGENOUS



Sectors and Cases

The following information is based on open-source information, which is by its nature incomplete. We will revise the PowerPoint as more information becomes available.

More information *useful*

More information *desired*

Sectors and Cases

- Mining
- Hydropower
- Water Pollution
- Illegal Timber and Rare Wood Smuggling

Mining Sector

India's Natural Resources (Maps of India)



07/07/20

60

Mining Sections

- Background and Governance
- Coal
- Iron Ore and Steel
- Uranium
- Copper
- Bauxite and Alumina Refining
- Sand Mining

Mining Sector Background

Mineral production (excluding atomic & fuel minerals) estimated at 1,24,020 crore [~\$16.5 billion] in 2018-19; an increase of 10.11%: [\(2018-19, Ministry of Mines Annual Report\)](#)

- Bauxite production decreased 10%
- Copper ore production decreased 4%
- Iron ore production increased 3%

Estimates of Gross Value Added (2011-12 prices) accrued from mining and quarrying sector for 2018-19 is 370,564 crore [~\$49.4 billion]. [\(2018-19, Ministry of Mines Annual Report\)](#)

2019 Statistics:

- **Second largest producer, consumer, and importer of coal** [\(2020, World Atlas\)](#) [Feb 12, 2020 Reuters](#)
 - Produced 729.1 million tonnes (provisional) in FY2019-20 [\(2020, Ministry of Coal\)](#)
- **2nd largest crude steel producer** (106.5 million tons in 2018) [\(2020, IBEF\)](#)
- 4th largest producer of iron ore (187.6 million tons by Feb. '19), 8% of world's deposits [\(2020, IBEF\)](#)
- 7th largest bauxite reserves [\(2020, IBEF\)](#)
 - Aluminum production of 2.25 MT and estimated to grow to 3.33MT in 2020
- Nine operational uranium mines and three mills produced a modest 308 tonnes of uranium (est. in 2019) [\(World Nuclear, 2019\)](#)

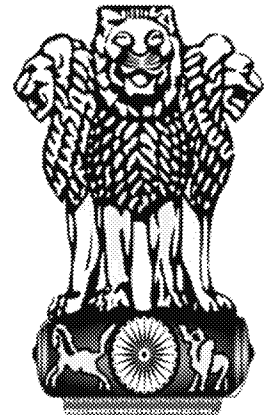
Mining sector employed approximately 23 lakh (2.3 million) people in 2011-12 [\(2019, Economic Times\)](#)

Mining Governance

Ministry of Mines is responsible for survey and exploration and mining of all minerals (other than natural gas, petroleum, atomic minerals and coal) and for administration of the Mines and Minerals (Regulation and Development) Act 1957 (MMDR) (2018-19, Ministry of Mines Annual Report)

Mines and Minerals (Regulation and Development) Act 1957 (MMDR): Regulates mining sector and specifies the requirement for obtaining and granting mining leases for mining operations (PRS India)

- **Major Minerals:** States substantially regulate and develop minerals subject to provisions of the MMDR Act, and **after prior permissions from the central government.** There is no official definition for “major minerals” in the Act. Hence, whatever is not declared as a “minor mineral” may be treated as a major mineral
- **Minor Minerals:** Building stones, gravel, ordinary clay, **ordinary sand**, and any other mineral which the Central Government may declare to be a minor mineral
 - **State Governments have complete powers to regulate** concessions in respect of **extraction of minor minerals** and levy and collection of royalty on minor minerals (Arthapedia)
- In 1993, 73rd Constitutional Amendment was designed to promote self-governance through statutory recognition of local bodies. The latter are expected to... implement their own programs of economic development and social justice (2003, Overseas Development Institute)



सत्यमेव जयते
Ministry of Mines
Government of India

(2015, Steel Guru)

MMDR Amendments

The original Act of 1957 was amended many times during 1958, 1960, 1972, 1978, 1986, 1994, 1999, 2010 and 2012. Finally in January 2015, **The Mines and Minerals (Development and Regulation) Amendment Ordinance, 2015** was promulgated to amend the original act [\(2015 AI Circle\)](#)

MMDR 2015: Promulgated on January 12, 2015, the ordinance **added to the Act a Fourth Schedule, which includes bauxite, iron ore, limestone & manganese ore.**

- The ordinance created a new category of mining license i.e. the prospecting license-cum-mining lease, which is a two stage-concession for the purpose of undertaking prospecting operations (exploring or proving mineral deposits), followed by mining operations
- **Maximum area for mining:** a person could acquire one mining lease for a maximum area of 10 sq km. However, for the development of any mineral, the central government could permit the person to acquire one or more licenses or leases covering additional area [\(2015 PRS India\)](#)

The 2015 Act also covered lease periods and extensions, the Auction of notified and other minerals, the Transfer of mineral concessions, and created District Mineral Foundation (DMF) & National Mineral Exploration Trust (NMET) [\(2015 PRS India\)](#)

- A major criticism was that MMDR 2015 **gives overarching power to the Centre over states** [\(2015 Down to Earth\)](#)
- Society of Geo-scientists and Allied Technologists (SGAT), a mining lobby body, has said that the introduction of prospecting license-cum-mining leases (PL-cum-ML) provision in the new mining ordinance is meaningless without assessment of mineral deposits [\(2015 Business Standard\)](#)

MMDR Developments

2016 Amendment: The **MMDR Amendment Act 2016** passed May 2, 2016 [\(PRS India\)](#)

- While the 2015 Act already provided for transfer of mining leases, **the 2016 Amendment provides that captive mining leases** where the entire quantity of mineral extracted is used in the manufacturing unit owned by the lessee and which were granted otherwise than through auction, **would be transferable with prior State Government approval on such terms and conditions** and payment of 'transfer charges' as may be prescribed by the Central Government [\(2016 Mondaq\)](#)
- One effect is that **holders of mining leases are entitled to dump mining waste or rejects from the mine in adjacent areas even if such areas may not fall within the area covered by the mining lease**, subject of course to the necessary environmental, forest and other clearances. This is significant since mining lease holders will now be able to fully exploit the area leased to them by conducting activities to win minerals from the entire area covered under the lease. [\(Lexology\)](#)

2020 Bill: The Mineral Laws (Amendment) Bill, 2020 was introduced in Lok Sabha on March 2, 2020. The Bill amends the MMDR 1957 and the Coal Mines (Special Provisions) Act, 2015 (CMSP Act). An Ordinance with similar provisions was promulgated on January 10, 2020. [\(2020 India Today\)](#)

The Ordinance

1) allowed companies to carry on coal mining operations for own consumption, sale or for any other purposes; 2) States companies need not possess any prior coal mining experience in India to participate in the auction; 3) Prior approval from the central government not required in certain cases (among others) [\(2020 Manifestas\)](#)

National Mineral Policy Opens Up India for Foreign Direct Investment

In 1993, (the first) **National Mineral Policy (NMP)** recognized the need for **encouraging private investment including FDI** and for attracting state-of-art technology in the mineral sector ([Ministry of Mines Mining Policy and Legislation](#))

First Update

National Mineral Policy 2008

- “As a major resource for development the extraction and management of **minerals has to be integrated into the overall strategy of the country's economic development**. The exploitation of minerals has to be **guided by long-term national goals and perspectives**” ([2008, Ministry of Mines National Mineral Policy](#))
- *Aug 2, 2017: Supreme Court directs the Union of India to have a "**fresh look at the National Mineral Policy, 2008** which is almost a decade old, particularly **with regard to conservation and mineral development**. The exercise should be completed by 31st December, 2017" ([Feb 2018, India Environmental Portal](#))

Incentivizing Mineral Exploration by Private Companies

As they prepared the new National Minerals Policy (NMP) in 2017, officials **prioritized mineral exploration** in order to **boost domestic mineral production**, citing that “around 90 per cent of India’s Obvious Geological Potential (OGP) area is currently unexplored.” (2017, ENVIS Center on Environmental Problems of Mining)

As of April 2020, that number had not changed much, with less than 10% of India’s OGP having been explored. (Apr 2020 Brookings India)

The new **NMP** makes it easier for private companies to conduct mineral exploration. Four models were proposed: (2018, The Indian Express)

1. Indian start-ups collaborate with Indian or international junior exploration companies (JECs) and put forward a proposal prepared with a government-notified exploration agency for priority funding by National Mineral Exploration Trust (NMET).*
2. Indian mining company undertakes exploration activity with a government-notified exploration agency, as a joint venture.
3. Public sector units, which are engaged in exploration activities, would be encouraged to form joint ventures with JECs or start-ups.
4. State government and state mineral development corporations undertake exploration activity in collaboration with JECs or start-ups.

Updated National Mineral Policy in 2019

National Mineral Policy 2019

- “it is **imperative that allocation of mineral resources is done in a fair and transparent manner** to ensure equitable distribution of mineral wealth to subserve the common good. **Mining needs to be carried out in an environmentally sustainable manner keeping stakeholders’ participation,** and devolution of benefits to the mining affected persons with the overall objective of **maintaining high level of trust between all stakeholders.** It shall also be ensured that the regulatory environment is conducive to ease of doing business with **simpler, transparent and time-bound procedures for obtaining clearances.**” (2019, Ministry of Mines National Mineral Policy)
- “The aim of **National Mineral Policy 2019** is to have a more effective, meaningful and implementable policy that brings in **further transparency, better regulation and enforcement, balanced social and economic growth** as well as sustainable mining practices” (2019, Press Information Bureau Government of India)

Illegal Mining

Section 23C of MMDR empowers states to establish laws preventing illegal mining [\(2019, First Post\)](#); bans of illegal mining have been criticized for covering up the problem instead of creating systems to prevent it and actively protect natural resources [\(2019, Reuters\)](#)

Jun-Aug, 2010: Residents from five states file more than 20,000 cases of illegal mining; Indian media report on formation of central government inquiry to investigate [\(2010, New York Times\)](#)

- Politicians rushed into mining sector during **construction boom in China** led to global increase in **iron ore prices (+500% between 2004 and 2009)**; **India relaxed export restrictions**

Nov 22, 2010: Central Government forms Commission of Inquiry for Illegal Mining of Iron Ore and Manganese (Shah Commission) [\(India Environmental Portal\)](#)

Oct 2013: Shah Commission submits final report; recommends total ban on iron ore and manganese ore exports [\(2013, Economic Times\)](#)

- Previous report led to temporary banning of mining in Goa by Supreme Court.

2013: Central government decides to treat illegal mining as plundering public property; instructs states to collect 100% of “stolen resources” [\(2019, First Post\)](#)

2018: 115,000 illegal mining complaints, more 80,000 pending in Indian courts in November 2019; existing mines and minerals policies allow for special state courts to process illegal mining cases [\(2019, First Post\)](#)

Mining Sector Regulations Recent Developments

- **Mineral Conservation and Development (Amendment) Rules 2018**
 - Ensures mineral production is not affected by the expiry of existing mining leases
 - Rules require general exploration to be carried out by 1 April 2019 for all mining leases (other than coal, lignite and atomic minerals) used for non-captive purposes expiring in March 2020.
 - It also lays down timelines for the implementation of exploration plans to ensure seamless transition on the expiry of existing mining leases.
- **Pro Active and Responsive facilitation by Interactive and Virtuous Environmental Singlewindow Hub (PARIVESH)**
 - A single-window integrated environmental management system, launched by the MoEFCC
 - Seeks to automate the entire clearance process for the MOEFCC, as well as the State Level Environmental Impact Assessment Authorities.
- **Ban on illegal mining in the State of Goa**
 - In February 2018, the Supreme Court of India set aside second renewals of mining leases granted by the State of Goa
 - The Court directed that mining operations in the State be resumed only after fresh mining leases and environmental clearances were granted in accordance with the provisions of the Mines & Minerals (Development and Regulation) Act 1957.

(2019, Mining in India)

Conflicts Between Communities and Mining

- **“India has some of the world’s best legislation for protecting the environment and the people’s basic rights. But implementation is far from satisfactory, and so the poor continue to lose out.”** -Institute of Rural Management Anand
- India’s deposits of bauxite are in the mountains in some of its **poorest states with significant tribal communities**: Odisha, Jharkhand and Chhattisgarh.
- The **Companies Act** (facilitates the interests of joint stock private and financial companies,) and the **Mines and Mineral (Development and Regulation) Bill** seem to override more progressive laws, including the Provisions of the **Panchayats Extension to the Scheduled Areas (PESA)** and the **Forest Rights Act (FRA)**.
 - PESA recognises tribal communities depend on village commons to survive, and that ownership is collective. PESA transfers power and control over resources, land, water, minor forest produce, and minerals to the people. State governments are reluctant to enact the law, and draft rules that enable *gram sabha* (village committees) control over resources. Without that local control, the operation of the act becomes null and void.
 - FRA, intended to protect tribal access to forests, has also been undermined by allowing infrastructure projects to proceed without obtaining forest clearance from communities or by forging *gram sabha* consent resolutions.

Coal

Second Largest Global Coal Producer; Demand Expected to Increase Despite Shift to Renewables

Second largest producer, consumer, and importer of coal. (2020, World Atlas) Feb 12, 2020 Reuters

- **Produced 729.1 million tonnes (provisional) in FY2019-20.** (2020, Ministry of Coal)
- Consumed 8% of the total world's coal; (2020, World Atlas)
- Imported 197.84 million tons in 2019 (2020, World Atlas)

Verified coal reserves estimated at 101.3 billion tons as of 2018 (2020, World Atlas)

Even as renewables become a more affordable alternative, coal will fuel India's domestic growth, **with coal power generation forecast to increase by 4.6% per year through 2024.** India's coal demand is expected to grow by more than that of any other country in that period.* (2019, IEA)

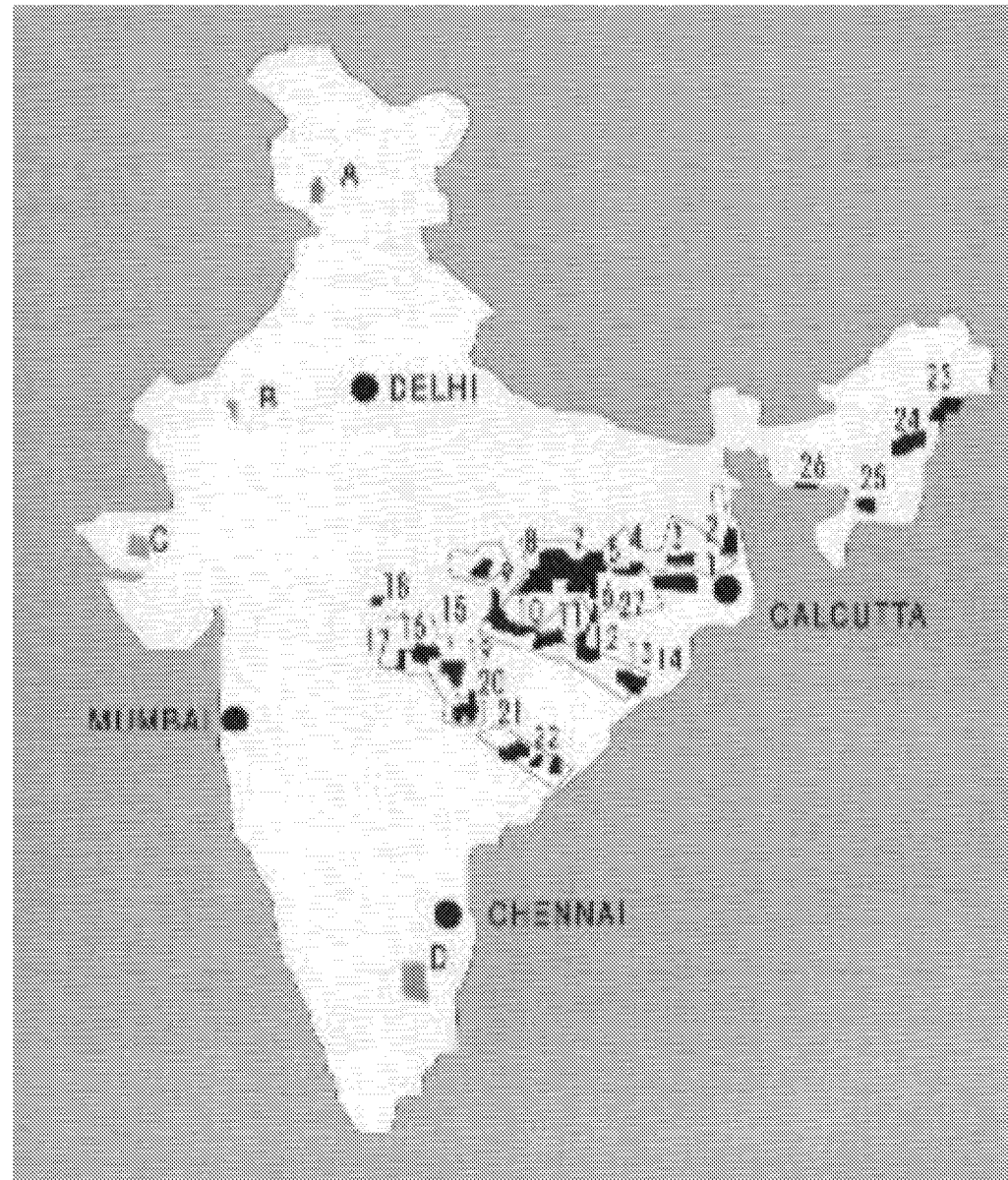
- India's 2018 National Electricity Plan (NEP) stipulated that India invest more in renewable energy than fossil fuels. 2018 investment in solar exceeded investment in coal. (Climate Action Tracker)
- In 2019, 72% of India's electricity was coal generated, a 3% reduction from 2018 (2020, Economic Times)
- As of Jan 2020, India operates 871 coal-fired units (56 under construction) and 294 coal-fired power stations (31 under construction) (Global Coal Plant Tracker)
- As of 2017, Greenpeace reported that more than **300 coal power plants** across India were **violating MoEFCC emission standard norms** (Green Peace, 2017)
- In Dec 2019, Greenpeace reported only 1320 MW [**0.7%**] had installed the flue gas de-sulphurization retrofits required by December 2022 to reduce emissions, out of total capacity of 166,472 MW (2019 Green Peace)

Coal Mining Governance: Ministry of Coal

“The Ministry of Coal [Ministry] has the overall responsibility of determining policies and strategies in respect of exploration and development of coal and lignite reserves, sanctioning of important projects of high value and for deciding all related issues.” [Ministry of Coal](#)

Under the administrative control of the Ministry, these key functions are exercised through the **Public Sector Undertakings (PSUs)**:

- Coal India Ltd. and its subsidiaries
- Neyveli Lignite Corporation Ltd
- Singareni Collieries Company Limited, a joint venture between the Government of Andhra Pradesh* (51% equity) and the Ministry of Coal (49 %). [\(Ministry of Coal\)](#)



Main Coal-Producing Public Sector Enterprises

Coal India Limited (CIL), India state-owned. World's largest coal-producing company [\(CIL\)](#) Headquartered in Kolkata, West Bengal, India.

- Contributed around **82% of India's coal production**, producing 606.9 million tonnes of raw coal in 2019, a 6.9% increase from 2018 [\(CIL\)](#) [\(Ministry of Coal\)](#)
- Seven producing subsidiaries [\(CIL About Us\)](#):
 - Eastern Coalfields Limited (ECL);
 - Bharat Coking Coal Limited (BCCL);
 - Central Coalfields Limited (CCL) (which has one subsidiary – Jharkhand Central Railway Ltd),
 - Western Coalfields Limited (WCL);
 - South Eastern Coalfields Limited (SECL) (which has two subsidiaries i) M/s Chhattisgarh East Railway Ltd (CERL), ii) M/s Chhattisgarh East-West Railway Ltd (CEWRL);
 - Northern Coalfields Limited (NCL);
 - Mahanadi Coalfields Limited (MCL) (which has four subsidiaries: i) MJSJ Coal Limited, ii) MNH Shakti Ltd, iii) Mahanadi Basin Power Ltd, iv) Neelanchal Power Transmission Company Private Ltd)
- Coal India Africana Limitada (CIAL) (foreign subsidiary in Mozambique)
- directly manages mines North Eastern Coalfields in Assam

Singareni Collieries Company Limited (SCCL), jointly owned by the Telangana* state government and the federal government.

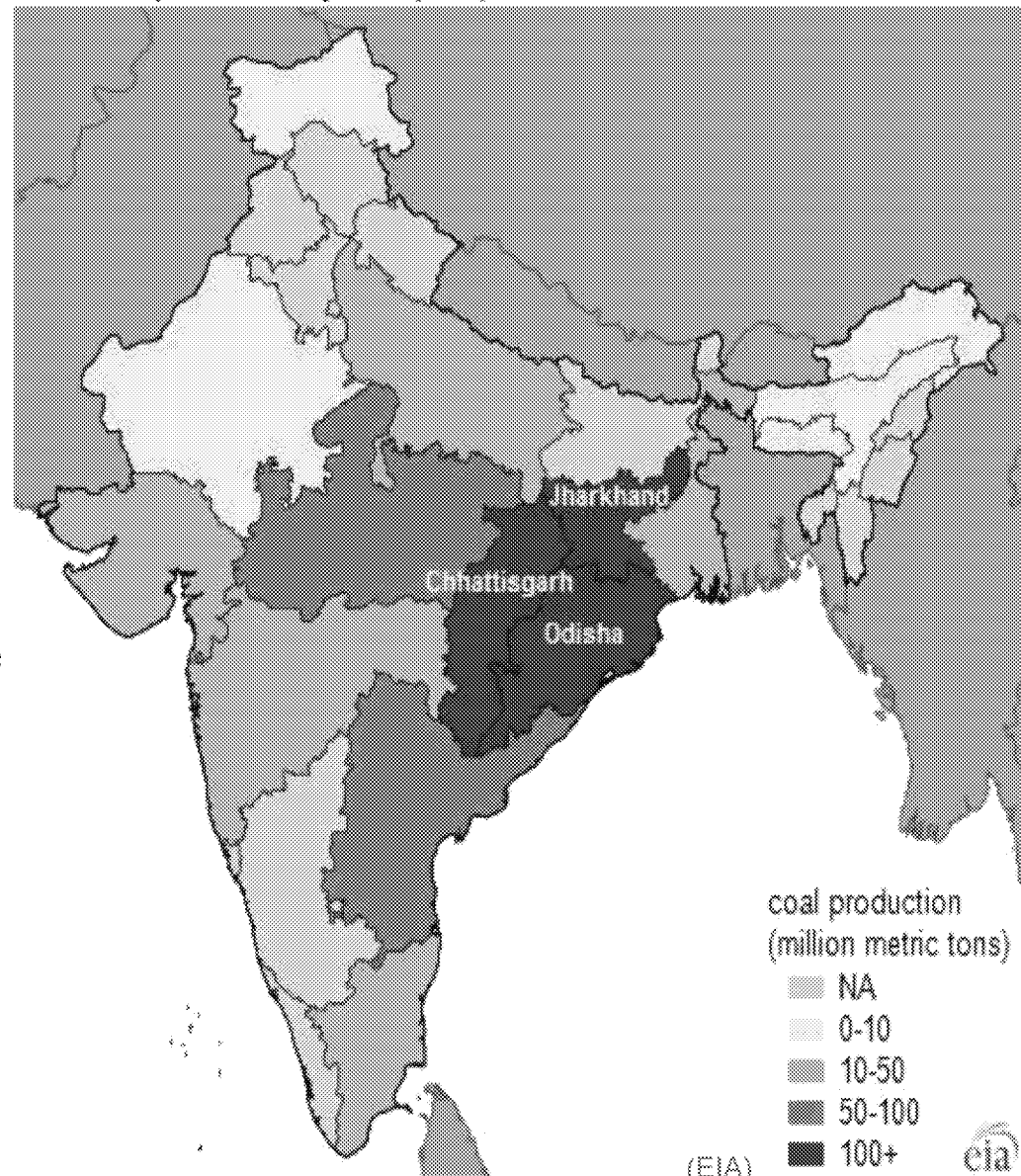
- Supplies coal to Southern India; produced 64.40 MT raw coal in 2018-19 [\(SCCL\)](#)
Operates 36 underground coal mines and 14 opencast mines. [SCCL Linked-In](#)

Neyveli Lignite Corporation Ltd (NLC), headquarters in Chennai, Tamil Nadu lignite mining capacity of 30 million tonnes per annum [\(NLC\)](#)

Largest Coal Deposits in India

- Coal deposits are primarily found in eastern and south-central India. **Jharkhand (26%), Odisha (24.5%), Chhattisgarh (18%),** West Bengal, Madhya Pradesh, Telangana and Maharashtra accounted for 98.20% of the total known coal reserves in India (GOI MOSPD)
- According to an Amnesty International Report, **Adivasi have suffered disproportionately from India's push for coal.** 1 in 6 of the 87,000 Indians who have been displaced over the past 40 years by state-owned Coal India Ltd (CIL) is Adivasi. (2016 Reuters)

India coal production by state (2012)



Key Coal Mining Developments

1774: Coal mining began with the East India Company's commercial exploitation in the Raniganj Coalfield in West Bengal ([Archive: Ministry of Coal](#))

1957: Coal Bearing Areas (Acquisition and Development) Act* (CBA Act) on acquisition of land for public-sector coal mining increased public control over coal-mining industries and coal-mining development [**\(2014, SSRN Electronic Journal\)](#) ([2016, Reuters](#))

- **operated in parallel with 1894 Land Acquisition Act**, covered land company required for infrastructure, township, and other requirements. [**\(2014, SSRN Electronic Journal\)](#)
- Analysts say law **falls short of international human rights law, standards.** ([2016, Reuters](#))

1973: Coal Mines (Nationalization) Act nationalizes all coal mines ([2018, Business Standard](#))

2011: Indian Comptroller and Auditor General (CAG) criticize Coal India Limited (CIL) for operating 239 [out of 470 or 50.9%] mines in seven coal-producing subsidiaries, which existed prior to 1994, without environmental clearance. Mines included: 48 [out of 164 or 29.2%] open-cast, 170 [out of 275 or 61.8%] underground and 21 [out of 31 or 67.5%] combined mines ([2011 Economic Times](#))

Coal: 2014 Land Acquisition Act, Supreme Court Cancellation of Almost all Block Allocations

Jan 1, 2014: 2013 *Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act (RFCTLARR or new Land Acquisition Act)*, enters into force, replacing Land Acquisition Act of 1894. **Exempts land acquired for public sector mining, including for infrastructure.** (2016, Reuters)

Aug 25, 2014: Supreme Court cancels allocation of 214 of the 218 coal blocks allotted between 1993 and 2010 to private and government mining companies, terming all allocations illegal. Decision followed public interest petition after August 2012 Comptroller and Auditor General report that government lost Rs 1.86 lakh crore [~\$33,439,080,000 by 2012 exchange rates] because coal blocks allocated to private companies without proper auctions.* (2015, Down to Earth) (Sep 25, 2014 Financial Express)

- Coal scam judgement brought brief respite in some places where mining was yet to begin. (2017, Climate Tracker)
- After the Supreme Court's judgement, there was hope that coal mining would slow down. But the cancellation of most existing mining leases served as a rationale for Coal India Limited to expand rapidly, citing a coal shortage. Coal India's production grew 16% from 462 million tonnes to 536 million tonnes between 2014 and 2016 (2017, Climate Tracker)

One Month After “Coalgate” (2014 Supreme Court Decision)

A month after the Supreme Court cancelled 214 of the 218 coal blocks allocated since 1993, people affected by the mining projects are anxious. While many welcome the judgement, they find nothing in the verdict that addresses their problems. In the coal-producing areas of Central India, **close to 9,000 villages** are located in the vicinity of coal mines, most of which now face cancellation and will have to be relinquished by March 31, 2015, and auctioned.

What's worse is the fact that the **companies have started extracting coal at a higher rate ever since the verdict came out.**

Displaced without compensation

Coal fields in central India continue to be plundered by mining companies, while affected people await compensation

■ Coal-bearing areas

Hasdeo Aron coal field

No. of coal blocks cancelled: **17**

People affected: **40,000**

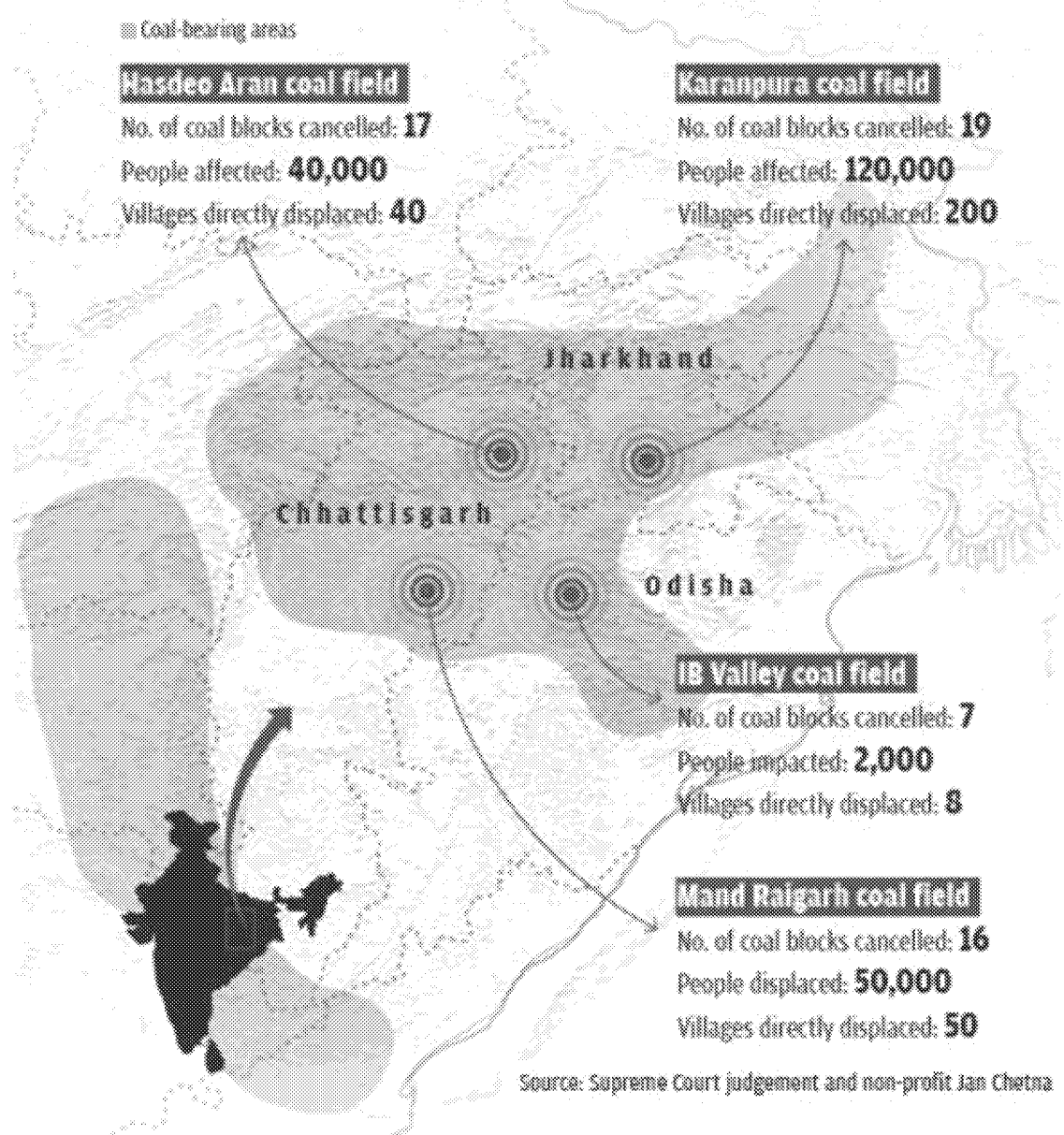
Villages directly displaced: **40**

Karampura coal field

No. of coal blocks cancelled: **19**

People affected: **120,000**

Villages directly displaced: **200**



Source: Supreme Court judgement and non-profit Jan Chetna

2015 Coal Mines Act Allows Private Companies to Mine Coal for Captive Plants; 31 Leases Auctioned

March 2015: Modi government enacts Coal Mines (Special Provisions) Act,*

- **Allowed private companies to mine coal for use in their own cement, steel, power or aluminium plants** [\(2015, Down to Earth\)](#)
- 31 mining leases for coal blocks were auctioned; land, environmental and forest clearances were transferred to winning companies [\(2017, Climate Tracker\)](#)
 - Led to a situation where the **previous mine owner enjoys blanket immunity, while new mine owners have been freed from liabilities.**
- **Auctions of coal blocks were far from transparent.** [\(2017, Climate Tracker\)](#)
 - When the bids for rich coal blocks fell below the notified price, government “was forced to sit up and take notice, canceling bids citing irregularities.”** When Jindal Steel and Power Limited, Vedanta Resources, and the Ministry of Coal were wrapped up in litigation over three blocks in Raigarh, Chhattisgarh, Coal India was asked to step in to act as the custodian of these blocks.***
- **Public sector companies have been increasingly outsourcing mining operations and rehabilitation to private entities, while also using public-interest land acquisition laws.** This has spiraled into conflicts, with private contractors failing to ensure that communities are consulted or rehabilitated. [\(2017, Climate Tracker\)](#)

Coal: 2014-2016 Communities Evicted as Mine Operations Expand; 2018 Private Companies Can Bid on Commercial Coal Mines

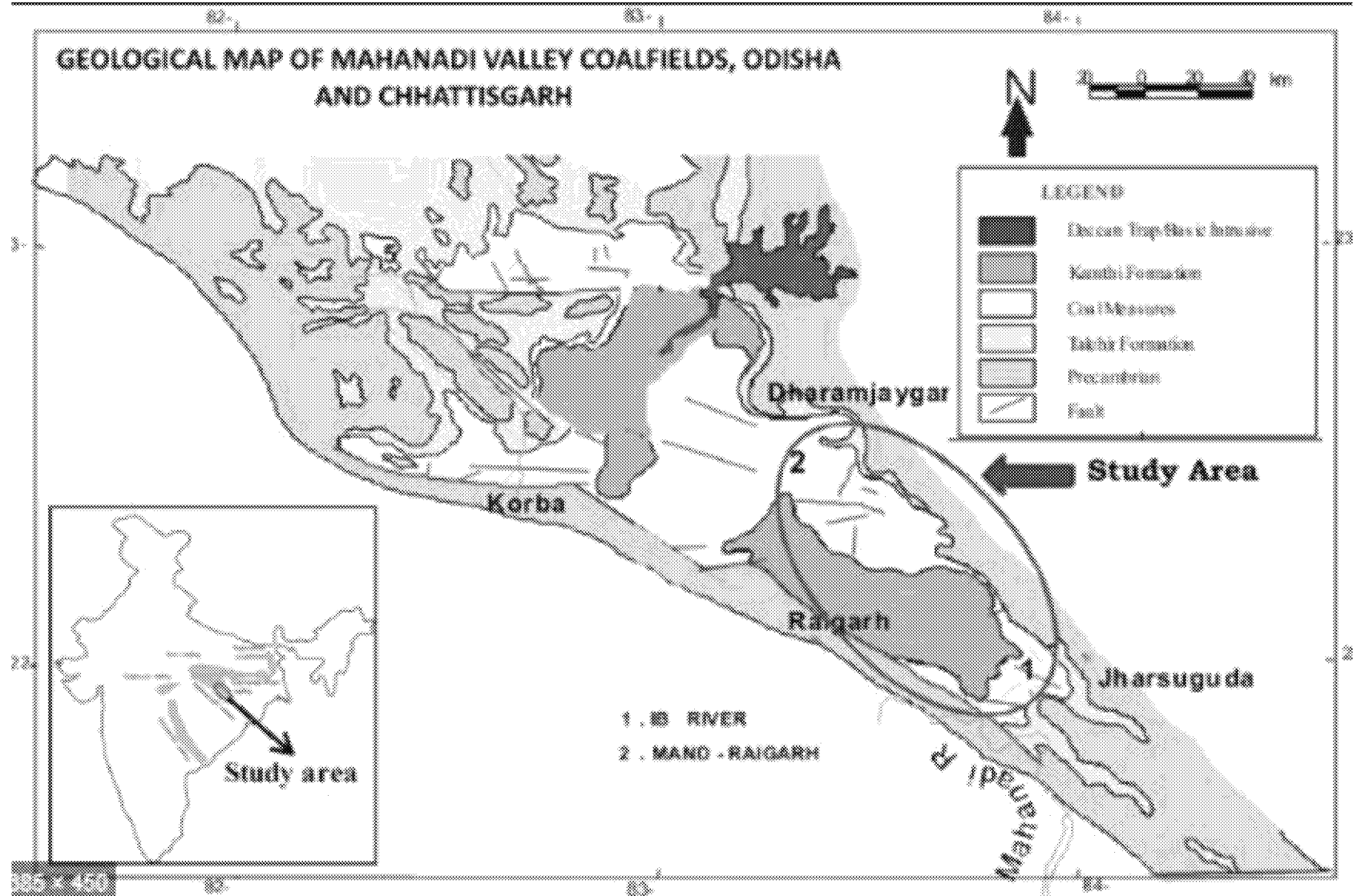
Between 2014-2016: Coal India's production grew 16% (2017, Climate Tracker)

- **Adivasi and Dalit communities were hit the hardest** by this increased mining activity and as Coal India chased an expansion target of 1.5 billion tonnes per annum, entire **villages disappeared in less than three years**, the village that lent its name to Coal India's Tetariakhar mine in Jharkhand, no longer exists
- Coal India's expansion was achieved using a combination of eminent domain laws to acquire land en masse, citing national interest, while using exemptions granted to justify a coal shortage.

January 8, 2018: The Coking Coal Mines (Nationalization) Act, 1972 and the Coal Mines (Nationalization) Act, 1973 were **repealed, allowing private firms to enter the commercial coal mining industry.** (2018, Business Standard)

- Under the new policy, mines are auctioned to the firm offering the highest per tonne price.

Chhattisgarh, Odisha: Mahanadi Valley Coalfield Cases (Korba, Raigarh, Jharsuguda, and Dharamjaygar Blocks)

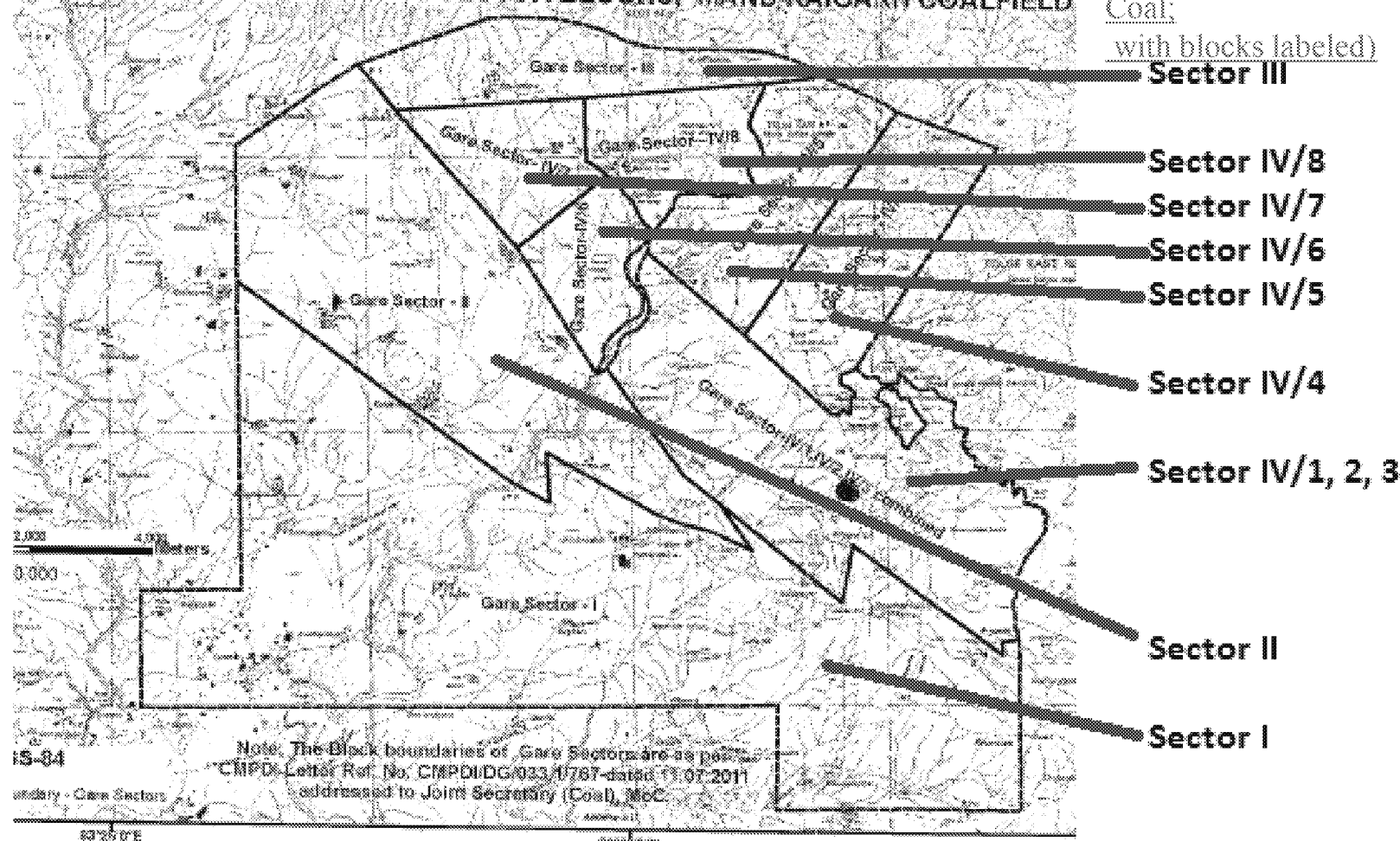


(2019 Springer)

Chhattisgarh, Raigarh District: Mand Raigarh Coalfield, Gare Palma [Pelma] Coal Blocks

BLOCK BOUNDARIES OF GARE SECTOR BLOCKS, MAND-RAIGARH COALFIELD

(Oct 13, 2015 Ministry of Coal;
with blocks labeled)



Mand-Raigarh coalfield: more than 112,000 hectares, estimated 21,117 MT of coal in 80 coal blocks. **Gare Palma:** largest coal block, with area of 16,649 hectares and mines in Tamnar, Gharghoda blocks. (Nov 2016 CG-FFT) March 2015: Most sought by 29 state-owned entities vying for allotment of 43 Schedule II and III coal blocks.

Chhattisgarh, Raigarh District: Gare Palma Sector-II (Tamnar Block) (1)

Starting Year: 2006

Number of People Affected: 13,074 people in 14 villages (Bhalumura, Chitwahi, Dholnara, Dholesara, Gare, Jhinkabahal, Kunjemura, Libra, Murogaon, Pata, Radopali, Saraitola, Sarasmal, Tehlirampur) (Nov 2016 CG-FFT)

Indigenous: Schedule V District; Scheduled Tribes 33% of the total population (main tribes: Gonds, Oraons)

Land Area Affected (in ha): 2,583

Reasons for Conflict: Violation of PESA Act, Forest Rights Act (FRA), pollution

Type of Land: Private and Common (Forest & Non-Forest)

Summary of the conflict: 2006: Ministry of Coal allots Sector II to Tamil Nadu Generation and Distribution Corporation (TANGEDCO) predecessor TNEB and Maharashtra State Mining Corporation, which form Mahatamil Collieries Ltd (MTCL) JV company to supply a proposed Gare Pelma pit-head power station. (Jan 2020 Global Energy Monitor)



(Apr 12, 2016 MahaGenco)

Chhattisgarh, Raigarh District: Gare Palma Sector-II (2)

2010: Gare Palma Sector II coal block is one of the biggest coal blocks in India that has an environmental clearance, isn't in an MoEF "no-go" block, and doesn't have activity by Naxalite forces. 35 big and small players showed interest "because of its unique location and huge reserves of coal," including: Tata Power, Reliance Energy, Adani Power, and Larsen & Toubro. (Jan 2020 Global Energy Monitor)

Aug 2011: TANGEDCO Letter of Award (LOA) to M/s. Lanco Infratech Ltd (Lanco) as Mine Developer and Operator of a power station (3,000 megawatts). (Jan 2020 Global Energy Monitor)

Late 2011: TANGEDCO states detailed exploration work likely to be completed by March 2012. (Jan 2020 Global Energy Monitor)

2013: Lanco to start coal production by end-2015/early-2016. Potential sites for power plant identified; technical assessment is in progress. Lanco has large debts, seeks to sell a minority stake in project (Jan 2020 Global Energy Monitor)

May 2014: M/s Mahatamil Mining and Thermal Energy Ltd. issues a terms of reference for a 4,000 MW power station in Garghoda village (Jan 2020 Global Energy Monitor)

[Aug 2014: Supreme Court cancels allocation of block]

March 2015: "Altogether nine state government-owned companies and public sector units are in fray for the Gare Palma Sector II, including: Andhra Pradesh Power Genco, Goa Industrial Dev Corp, Gujarat State Electricity Corp, Madhya Pradesh Power Genco, Maharashtra State Power Genco, NTPC, Tamil Nadu Genco, Singareni Collieries and UP Rajya Vidyut Utpadan Nigam." (Mar 10, 2015 Steel Guru)

Chhattisgarh, Raigarh District: Gare Palma Sector-II (3)

Aug 2016: The Maharashtra Power Generation Company receives coal mining lease for Gare Palma Sector II, and starts environmental clearance process. The District Administration issues a circular directing the Panchayats of the 14 villages to conduct a public hearing for the environment clearance.

- This violates the PESA and FRA under which a District Administration cannot direct Gram Sabhas regarding Public hearing*
- After seeing this circular, residents...held a march against the government order in the form of a circular. They also submitted a memorandum asserting their rights under FRA and PESA to the Ministry of Coal, the Governor, the Chief Minister, and the Collector (Dec 3, 2019 Land Conflict Watch - Maharashtra)

Apr 2018: The first public hearing as per the Environmental Impact Assessment 2006 is set for April 17, 2018, was deferred, and rescheduled for June 27, 2019 (26 Aug 2019, Business Standard)



(Fly ash from power plants in agricultural fields, Raigarh district)

Chhattisgarh, Raigarh District: Gare Palma Sector-II (4)

June 2019: Over 100 village protesters hand over a memorandum, addressed to the Raigarh District collector and the local tehsildar (revenue officer), demanding cancellation of the June 27 public hearing called for taking consent for the coal mining project ([17 Jun 2019 Business Standard](#))

Ramesh Agrawal*, a 2014 Goldman Environmental Prize winner, challenges a Chhattisgarh High Court ruling that the public hearing on June 27 be held in presence of a member secretary of the pollution control board

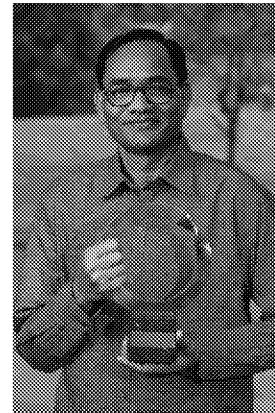
“Only a member secretary of state pollution control board is empowered to decide the date and venue of a public hearing, whereas in this case (of Gare Palma-II), the power has been delegated to the regional office of the SPCB,” - Agrawal ([21 Jun 2019 Business Standard](#))

“Surprisingly, the District Collector of Raigarh issued an order postponing the public hearing. “The proceeding was postponed following a letter from the Superintendent of Police citing law and order issues,” a district administration spokesperson said.”

([21 Jun 2019 Business Standard](#))



(Agrawal with his family)



(Agrawal with his
Goldman
Environmental
Prize for Asia
2014)

Chhattisgarh, Raigarh District: Gare Palma Sector-II (5)

September 2019: Public hearing held on September 27, approx. 1,000 people were gathered. 57 persons signed attendance sheet [\(27 Sep 2019, Public Hearing\)](#)

- Residents highlighted **impact of existing projects on groundwater and air quality, damage to fields due to spillage of fly ash**, cracks in houses caused by blasting and fires in coal mines and stockpiles. **Hundreds claimed their consent was falsified in the first place** and protested on the spot, resulting in the police booking 54 of them. [\(28 Dec 2019, The Hindu\)](#)

March 2020: Maharashtra Minister of Energy Nitin Raut, said, "MahaGenco has already received forest clearance and other approvals from the Centre and the Chhattisgarh government. The environment clearance is expected by the second week of March, which will pave way for the company to sign the land agreement with the local authorities. [\(Mar 2020, First Construction Council\)](#)



Chhattisgarh, Korba District: Gevra (Gavra) Coal Block

Starting Year: mid-1990's to present

Number of People Affected: 5,000, including indigenous

Land Area Affected (in ha): 4,058

Reasons of Conflict: Land Acquisition, Environment

Type of Land: Private and Common (Forest)

Tribals, including the protected tribe Korwas (Pahadi Korwa), constitute 51.67% of the population of Korba District. Korba is blessed with lush green forest cover, where a sizable tribal population is found. [Korba website](#)



Summary of the conflict: Largest opencast mine in India (2011 archived Korba website)

1978: Indian government cleared Korba Super Thermal Power Station (KSTPS), India's largest thermal power station, for western bank of Hasdeo in Bilaspur District, Madhya Pradesh. ([Jun 21, 2018 CPR India Gevra Case Study](#))

March 1979: Gevra was designed to meet KSTPS's expanded coal requirement of 6 MTPA

1981: Opened for mining, one of three mines in Korba District. (Dec 3, 2019 Land Conflict Watch)

1987: World Bank funding to increase production to 10 MTPA. (Jun 21, 2018 CPR India Gevra Case Study)

mid-1990s: Sampooran Das, politician from Gevra of Communist Party of India (Marxist) recalls people in Gevra starting to respond to issues of land acquisition and pollution due to mining, including a **mobilization of farmers in Naraibodh village on Aug 11, 1997** ([Jun 21, 2018 CPR India Gevra Case Study](#))

Chhattisgarh, Korba District: Gevra Coal Block Expansion (2)

April 2005: “The MoEF noted **many environmental violations** including: fugitive emissions not being monitored; metering of water pumped out of the mine and reused was not being carried out; no bag filters were provided for the coal handling plant (CHP); ground water was not being recharged artificially, and check dams needed to be built before monsoon” (Jun 21, 2018 CPR India Gevra Case Study)

2011: Gevra Mine is already 11% of country’s total coal production (2011 archived Korba website)

2015: MoEF gave clearance to increase production capacity from 35-41 MTPA. (Dec 3, 2019 Land Conflict Watch)

May 2, 2016: Around 679 farmers from 41 villages protested South Eastern Coal Fields (SECL) (CIL subsidiary) acquiring land for mining. Protesters demanded jobs,* rehabilitation, and compensation per 2013 Land Acquisition Act. Said 1957 CBA Act, 1996 PESA Act, and 2006 FRA all violated for land acquisition in region. (29 Jun 2016, Down to Earth)

Sep 15, 2017: MoEFCC Official Memorandum No. J-11015/224/2015-IA.II allows mining projects obtain expansion in EC capacity up to 40% of their existing capacity with exemption from public hearing (Jun 21, 2018 CPR India Gevra Case Study)

- “Thus to meet the Country demand of coal, this application has been made for amendment in EC capacity from 45 to 49.00MTPA under 40%OM dated 15.09.2017” (With reference to MoEFCC OM J-11015/224/2015-IA.II)



(2017 Gevra Open Cast Mine)

Chhattisgarh, Korba District: Gevra Coal Block Expansion (3)

2017: SECL seeks diversion of 112.38 Ha of Revenue Forest land [Dec 9, 2017 The Pioneer](#)

June 2019: MoEFCC expert appraisal committee recommended that Chhattisgarh Environment Conservation Board issue public notice seeking feedback from local community on proposed increase of production from 45 to 49 million tonnes* [Dec 3, 2019](#)

[Hindustan Times](#)

- Villagers and environmentalists report never seeing public notice or information about public hearing even though they file two RTIs so could they could air grievances about transportation, increase in load of road transport leading to **air pollution from coal dust**, spike in traffic, accidents, resettlement, and employment.

Dec 2019: Plans to further increase the production capacity up to 70 MTPA. [\(Dec 3, 2019 Land Conflict Watch\)](#)

June 2020: PM Modi launched the auction of 41 coal blocks for commercial mining, calling it major step towards making India self-reliant in the energy sector [\(18 Jun 2020, The Hindu\)](#)

July 2020: Deepesh Mishra, area general secretary of the All India Trade Union Congress (AITUC), said that least 17,000 workers joined the protest in Korba district demanding the “withdrawal of the decision regarding commercial coal mining and stopping moves to weaken or privatise Coal India Limited and SECL” [protests occurred simultaneously at both the Gevra Coal Block and Dipka Mine, the next case study] [\(2 Jul 2020, Outlook India\)](#)

Chhattisgarh, Korba District Dipka Mines (Next to Gevra Mine) (1)

Starting Year: 2013

Number of People Affected: completely displaced 1690 families in 10 villages

Land Area Affected (in ha): 1,999

Reasons/Nature of Land Conflict:

Non-implementation violation of the FRA

Type of Land: Private and Common (Forest)

Summary of the conflict:



(An extension of the Dipka mine near Hardi Bazar in Korba)

The **Dipka Mines**, owned by South Eastern Coalfields Limited (SECL), have a production capacity of 31 Metric Tonnes Per Annum. The coal mines are spread over 1999.293 Ha. The **mining activity here has completely displaced 1690 families in 10 villages**. Some of the displaced families were resettled and compensated for their land, while many are yet to be resettled and receive adequate compensation. The land acquisition reportedly happened in phases between 1986 and 2004.

The displaced community members of Gevra, Dipka, Kusmunda and other mines in the region have come together to jointly protest against all the mining activity in their region. They are together raising demands for employment opportunities for all displaced families, fair compensation, rehabilitation and resettlement.

Chhattisgarh, Korba District Dipka Mines

(Next to Gevra Mine) (2)

January 2017: fresh protests were launched by the affected villagers by stopping blasting related work in the different sites of the mines ([Land Conflict Watch - Dipka](#))

September/October 2018: The Dipka Mines close due to flooding after embankments of a nearby river broke due to heavy rainfall ([3 Oct 2019, Reuters](#))

-Local environmental activists Bipasha Paul of Raipur-based Jan Abhivyakti visited the spot soon after the flooding and found that **fly ash washed away from the mine polluted the river** ([11 Feb 2020, Hindustan Times](#))

January 2020: The Union Ministry of Environment, Forest and Climate Change has sanctioned a 30-year environment clearance extension to the Dipka coal mine ([12 Feb 2020, The Wire](#))

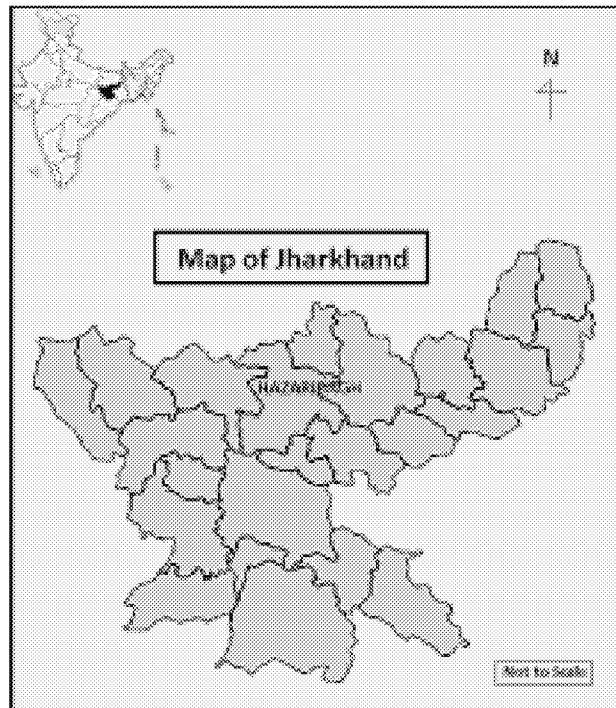
June 2020: PM Modi launched the auction of 41 coal blocks for commercial mining, claiming it was a major step towards making India self-reliant in the energy sector ([18 Jun 2020, The Hindu](#))

July 2020: 17,000 workers joined the protest in Korba district demanding the “withdrawal of the decision regarding commercial coal mining” [also took place at Gevra Coal block] ([2 Jul 2020, Outlook India](#))



(Trucks at the entry point into Dipka town)

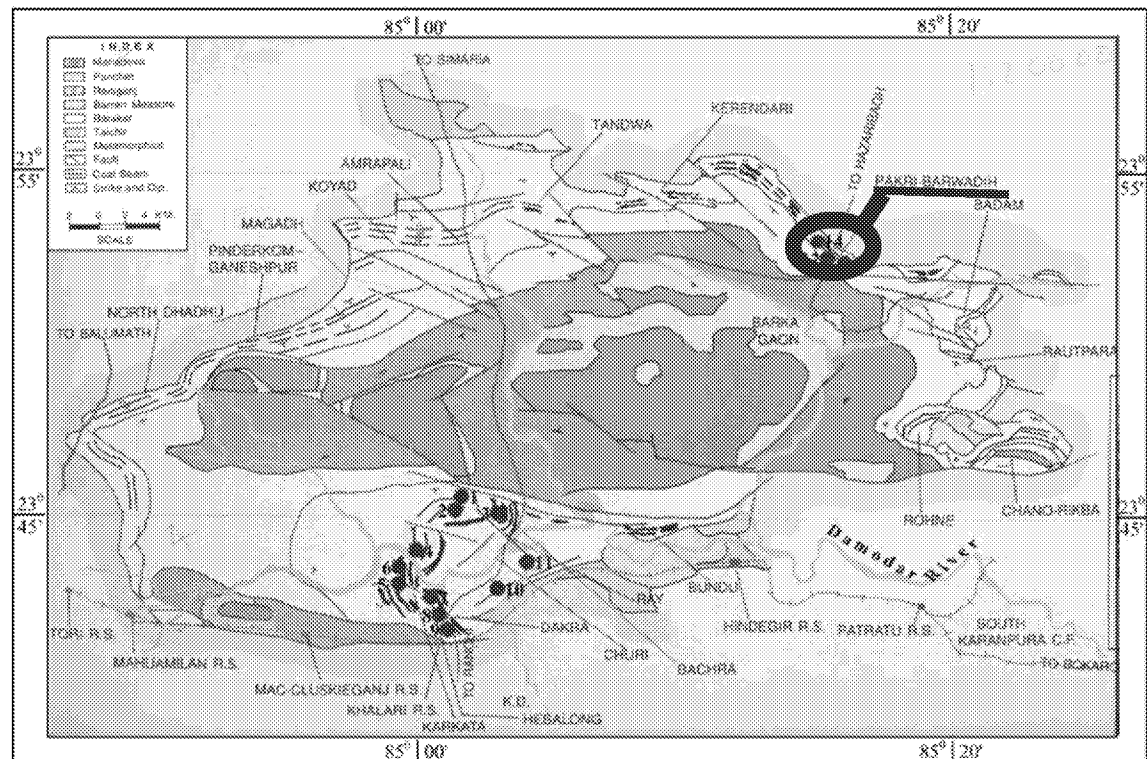
Jharkand, Hazaribagh District: Pakri Barwadih Coal Block



(The Mental Club)

Geological map of North Karanpura coalfields showing locations of coal mines, Pakri Barwadih Coal Block is Circled

(Research Gate)



Jharkand, Hazaribagh District: Pakri Barwadih Coal Block (1)

Starting Year: 2004

Number of People Affected: 38,116

Land Area Affected (in ha): 3,319

Reasons of Conflict: Coal Mining

Type of Land: Private and Common (Forest)



Summary of the conflict: Ministry of Coal allocates Pakri Barwadih coal block in Barkagaon block of Hazaribagh district to the National Thermal Power Corporation Limited (NTPC). Extractable reserves are about 642 MT. Project has affected 23 villages in the block dependent on the land for agriculture, grazing and forest produce.

2004: Protests start against the loss of fertile, multi-crop land. (2020, Land Conflict Watch)

2004-2007: According to activists, NTPC carried out a **secret survey across 28 villages to acquire land** for coal mining. (2020, Land Conflict Watch)

2007: Two public hearings held, both met with opposition. There was an **attempt to conduct and record a fake public hearing at midnight, a day before the actual hearing**, with people brought in from outside. (2020, Land Conflict Watch)

Nov 2010: Thiess Minecs (TM), an Australian company, got a contract from NTPC for a 27-year deal to develop and operate the green-field Pakri Barwadih coal mine. Environmental impacts include biodiversity loss (wildlife, agro-diversity) and deforestation (EIA)

Jharkand, Hazaribagh District: NTPC Pakri Barwadih Coal Block (2)

Jul 23, 2013: Police shot at farmers in Pagar village when they tried to stop an NTPC contractor from starting the construction of an office. A 55-year-old farmer, Keshar Mahto, died on the spot, while three were injured. [\(2016, Scroll.in\)](#)

Jan 2014: Protestors damage equipment and threaten officials, halting work at the Pakri Barwadih mine. NTPC has been blocked from starting its first coal mine in the country by villagers demanding higher compensation for their land, stymieing its plans to secure local fuel supplies [\(28 Jan 2014, Bloomberg\)](#)

May 13, 2014: “TM failed to make any headway despite the fact that development period of the contract was extended twice ie. initially for 450 days and 360 days later...Thus, (due to the above failure) NTPC had no option but to terminate the contract on 7th. May 2014 with a notice period of 45 days.” [\(13 May 2014, NTPC Press Release\)](#)

Aug 14, 2015: Police fired 22 rounds at protestors, injuring six including a journalist. [\(2016, Scroll.in\)](#)

Sep 2015: Contract to develop the Pakri-Barwadih block awarded to Thriveni Sainik* [\(29 Sep 2015, Economic Times\)](#)

Jharkhand, Hazaribagh District: NTPC Pakri Barwadih Coal Block (3)

Oct 1, 2016: During a land acquisition protest against NTPC and its contractor Thriveni Sainik, **police shoot and kill five protesters.** Protesters were protecting a local Member of Legislative Assembly, who was attending the protest, from arrest. [\(2016, Scroll.in\)](#)

- Section 144 imposed in Badkagaon, Hazaribagh [\(Oct 1, 2016 The Wire\)](#)

2017: Civil rights organizations, including Ekta Parishad, filed case in Jharkhand High Court, alleging that NTPC has violated the 2013 Land Acquisition, Rehabilitation and Resettlement Act and the 2006 Forest Rights Act. [\(Dec 11, 2018, Down to Earth\)](#)

Dec 1, 2018: Jugra villagers complain to district administration and plan to approach Jharkhand High Court that NTPC forcefully acquired 11.81 hectares of paddy land and forcibly constructed a road to the mine, with coal-laden vehicles are **causing severe pollution.** [\(Dec 18, 2018, Logical Indian\)](#) [\(Dec 11, 2018, Down to Earth\)](#)

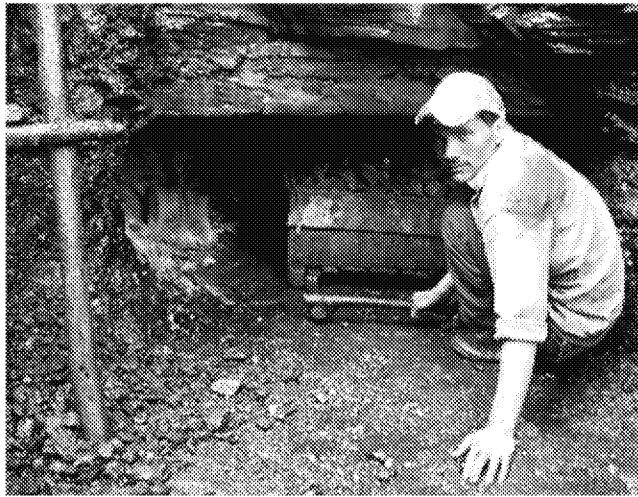
April 1, 2019: NTPC said it has started commercial production of coal from Pakri Barwadih mine (coal capacity of 15 MTPA) [\(1 Apr 2019, Economic Times\)](#)

May 16, 2020: A year after being appointed as the Mine Developer cum Operator for this Project for a period of 27 Years, Thriveni Earthmovers completed its first dispatch of Coal from the NTPC Project [at Pakri Barwadih coal mine] [\(Thriveni\)](#)

Meghalaya, East Jaintia Hills District



Meghalaya: NGT Bans Rat-Hole Coal Mining



(A file photo of a miner in a rat-hole mine in Meghalaya)

1990's: Commercial mining without any regulations explodes (Jan 12, 2019 The Scroll)

-Most of Meghalaya's coal reserve (about 640 million tonnes) is mined "unscientifically" by individuals and communities. (2015 Down to Earth)

-Rat-hole mines are deep vertical shaft to locate thin coal seams around which a network of horizontal tunnels is built. Children and young adults are commonly employed in these small tunnels. (Dec 24, 2018 Quartz)

Apr 24, 2014: All Dimasa Students' Union and the Dima Hasao District Committee file application before the NGT alleging that the water of the Kopili river was turning acidic due to coal mining in the Jaintia Hills. (2015 Down to Earth) / (Date obtained from NGT website)

April 17, 2014: **National Green Tribunal (NGT)** orders **interim ban on "rat-hole" coal mining** in Meghalaya.

2014: After the NGT decision, **Agnes Kharshiing**, investigating cases of forcible acquisition of land for illegal coal mining and eventually the coal mafia. (Dec 1, 2019 Indian Express)

- 14 cases filed against Kharshiing for her anti-corruption and illegal mining work. (Nov 10, 2018 Human Rights Defenders Alert - India)

Meghalaya: Right to Information Activist Attacked for Recording Illegal Coal Transport



(2018, NDTV)

Agnes Kharshiing is the President of Civil Society Women's Organisation (CSWO) and National Working Committee Member of People's Commission on Shrinking Democratic Space (PCSDS) (Business & Human Rights Resource Centre)

Nov 8, 2018: After visiting police, Agnes Kharshiing and CSWO colleague Amita Sangma went to Tuber Sohshrieh in East Jaintia Hills district to follow up a complaint Kharshiing had filed against coal-laden trucks parked at Mawiong rim in Shillong. Kharshiing **photographed some trucks loading coal illegally.** When they reached Tuber Sohshrieh, she spotted two more trucks loading coal 100 meters away from the National Highway. They diverted their vehicle from the highway and took photographs of the loaded truck. When they reached highway, **their car was blocked** with some vehicles and around 30-40 people assembled there [allegedly led by Chullet, National People's Party leader in Meghalaya] (Business & Human Rights Resource Centre)

The mob first dragged Kharshiing from the car, kicked her, and then dragged her to nearby jungle where they beat her with wooden logs. The mob then dragged Sangma to the jungle, kicked her, broke three fingers, then beat her with a wooden log. **Kharshiing was found in the jungle unconscious, hospitalized in critical condition,** and survived a blunt force trauma to the scalp 7-9 cm deep. (Business & Human Rights Resource Centre)

Arrests for Attempted Murder; Second Defender Attacked

Nov 8, 2018: After attack, rumours on local WhatsApp groups said Kharshiing had demanded money in exchange for evidence she had on her against some prominent mine owners like Nidomon Chullet and things went wrong. [\(Dec 1, 2019 Indian Express\)](#)

Nov 9, 2018: Two arrested for murder attempts, search underway for others [\(Nov 9, 2018, NDTV\)](#)

Nov 9, 2018: Marshal Biam, Chairman of local North East Indigenous People's Federation, files **First Information Report (FIR)** [victim's police report] at the district's Khliehriat police station against East Jaintia Hills Superintendent of Police (SP), whom Biam accused of forcing him to withdraw complaints against coal dealers. Earlier that day, **Biam reportedly escaped an attempt on his life**, allegedly by coal dealers. According to the FIR, as many as seven people assaulted Biam, pulled him into a vehicle, and took him to the SP's office, where the **SP asked Biam to withdraw the complaints made by people associated with his organisation.** [\(Dec 27, 2018 The Wire\)](#)

Nov 2018: Chullet, National People's Party leader in Meghalaya, is accused in FIR. [\(Dec 1, 2019 Indian Express\)](#)

Dec 25, 2018: Chullet surrenders at Khliehriat police station; another suspect surrenders on Dec 26. [The Wire Dec 27, 2018](#) Sangma files an appeal before Meghalaya High Court seeking a CBI inquiry into the case with a list of prominent politicians of the state "and their involvement in the coal business," referring to Biam's FIR to highlight "the very close nexus between the state police and the coal mafia." [The Wire Dec 27, 2018](#)

Meghalaya: Coal Mafia Continues Illegal Coal Mining Despite NGT Ban

Dec 4, 2018: Citizens submit report to the Supreme Court, “Coal-bearing areas in many villages have been consolidated under the ownership of a few large-scale mine owners, leaving many others landless. Their livelihoods have been affected, and many are excluded from, the web of activities connected with coal mining and trading.” Led to “migration of the tribal poor...from mining areas to urban centres like Shillong and Tura. This is a result of the **commons being forcefully privatised and hence preventing access to land by the many.**” ([Jan 12, 2019 The Scroll](#))

December 13, 2018: At least 15 miners feared dead after an illegal coal mine they were digging collapsed on them in East Jaintia Hills. ([Dec 24, 2018](#)) Accident makes headlines for Meghalaya’s late response and for “**open secret it has brought to wider attention: that coal mining has continued unabated**” despite 2014 NGT ban and coal mafia reigns unchallenged. ([Jan 12, 2019 The Scroll](#))

- Meghalaya administration claims NGT ban is difficult to enforce since coal mining is the primary source of livelihood in a region with few other employment opportunities, where vast tracts of land left uncultivable by rampant mining.
- Many Jaintia Hills residents claim the coal benefits only the rich mine owners who grab the land of poor farmers to dig for the mineral.

Meghalaya: Coal Mafia Continues Illegal Coal Mining Despite NGT Ban

June 2019: Despite her condition, Kharshiing files a RTI query at the Directorate of Mineral Resources on all the challans issued to mine owners on the direction of the Supreme Court in December 2018. She said in December 2019 she was still awaiting an answer. (Dec 1, 2019 Indian Express)

July 2019: Supreme Court passes an order that allows mining to resume in Meghalaya, in compliance with central mining laws.

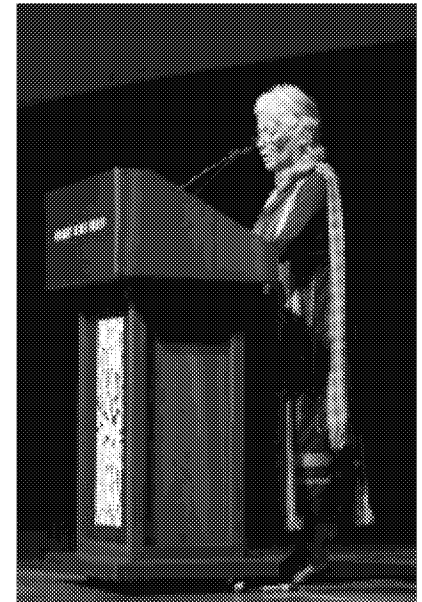
(Dec 1, 2019 Indian Express) **Charges filed against Chullet** (Dec 1, 2019 Indian Express)

Sep 2019: Kharshiing accepts International Hrant Dink Award in Istanbul for her willingness to take on “the risk to her life as she makes the years-long illegal mining known to the public.” (Dec 1, 2019 Indian Express)

October 2019: Hasina Kharbhih, a human-rights activist from the Impulse NGO Network and a petitioner in an ongoing case brought by the National Green Tribunal, said that if the government wants mining to be in the interest of the people in the state, then it will have to consult the public on the framing of the policy (Dec 24, 2019 Foreign Policy)

December 1 2019: Chullet released on bail (Dec 1, 2019 Indian Express)

June 2020: Chullet, hands over a cheque worth Rs 2 lakhs to the Chief Minister’s Relief Fund to fight COVID19 pandemic, a move Kharshiing said the Meghalaya government should not have allowed (6 Jun 2020, Northeast Now)



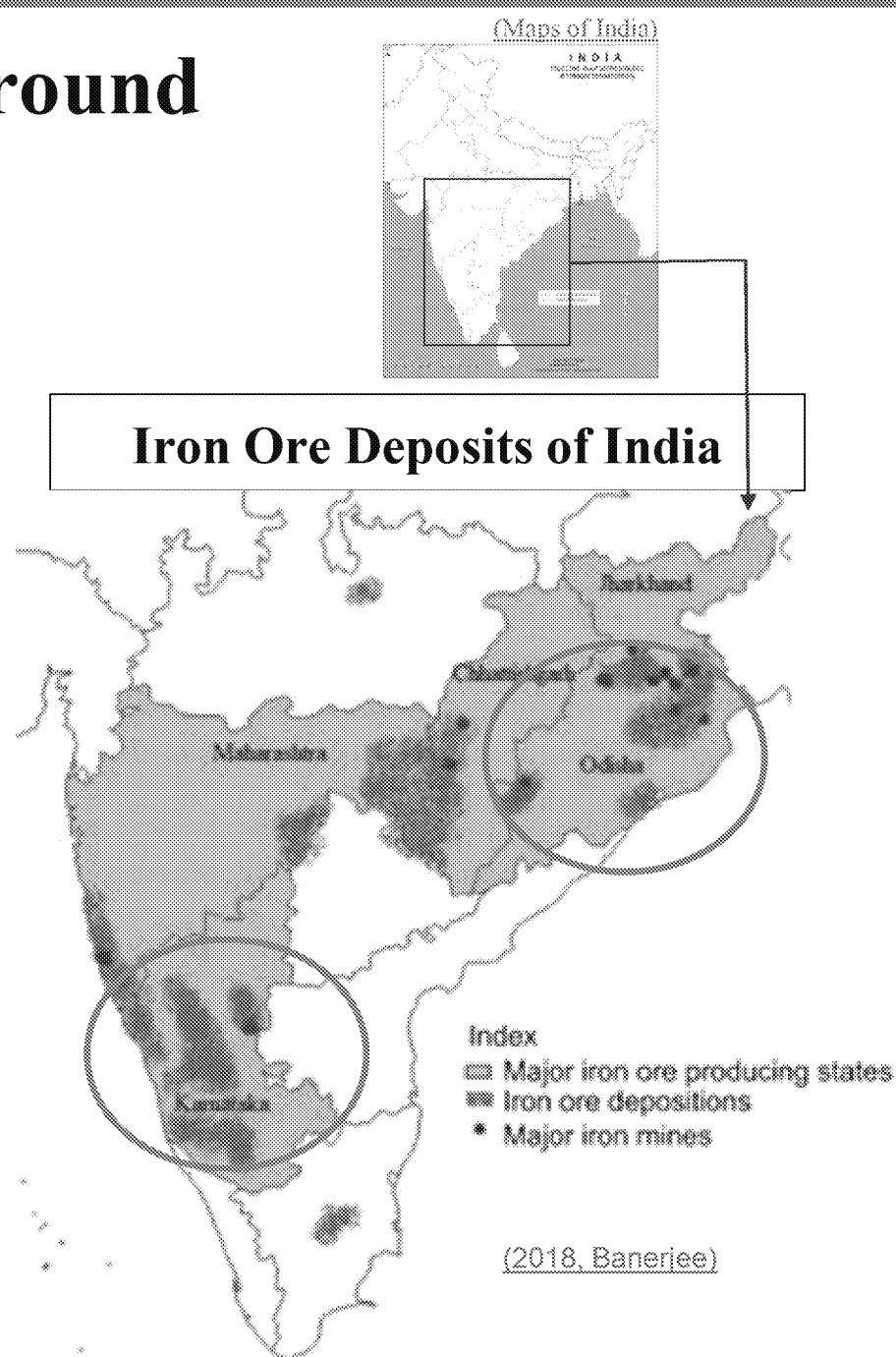
(Kharshiing accepts International Hrant Dink Award in Istanbul)

Iron Ore/ Steel

Iron Ore Background

- India is the **fourth largest iron ore producing country** in the world.
 - In FY20, iron ore production increased to 205.70 MT (2020, India Brand Equity Foundation)
- There were 294 reporting mines in 2017-18, compared to 318 mines the previous year.

Odisha (51%) was the leading producer of iron ore followed by Chhattisgarh (17%), Karnataka (14%), and Jharkhand (11%) (GOI Ministry of Mines Annual Report 2018-19)
- India's iron and steel export in FY20 (till February 2020) stood at US\$ 8.65 billion (2020 IBEF)
 - Approx. 7% of India's iron ore was exported in FY19, mostly to China (2019, Business Insider)
- Almost all (**98%**) **iron ore is used in steelmaking** (USGS)



Steel Production - Raw Materials

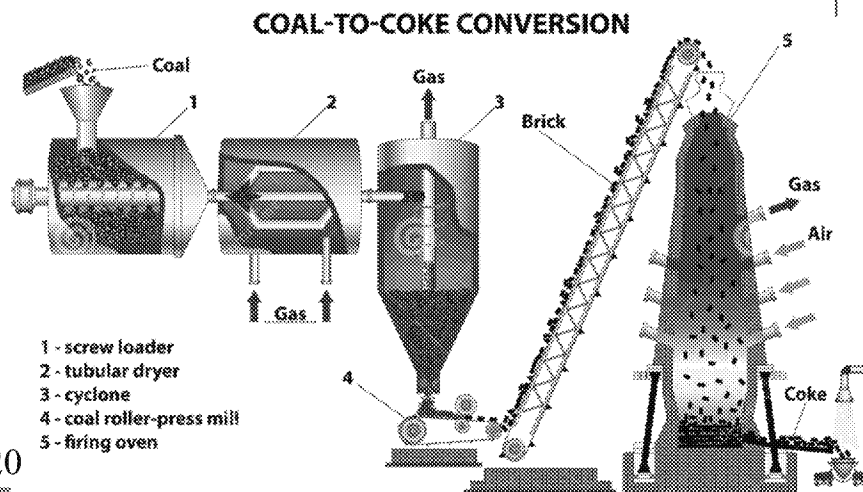
Global steel production is dependent on coal. 70% of the steel produced uses coal. World crude steel production was 1.8 billion tonnes in 2018 (World Coal Association)

Coke Making

Coke is produced in a coke battery, which is composed of many coke ovens stacked in rows into which coal is loaded.

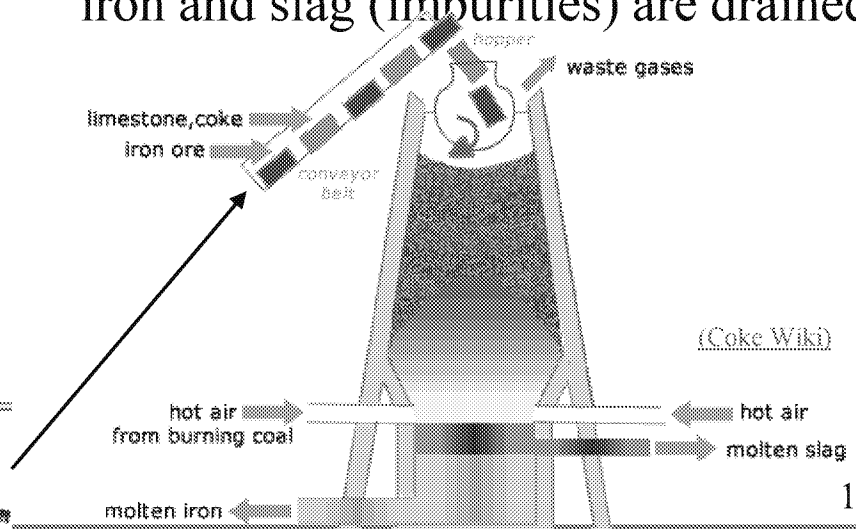
1. heat coking coal to around 1000-1100°C in the absence of oxygen
2. results in a hard porous material - coke
3. hot coke is then quenched with either water or air to cool before storage or is transferred directly to the blast furnace for use in iron making

The coking process between 12-36 hours in the coke ovens



Iron Making

1. blast furnace fed with the iron ore, coke and small quantities of fluxes (minerals, such as limestone)
2. Air heated to about 1200°C is blown into the furnace through nozzles in the lower section
3. The air causes the coke to burn, producing carbon monoxide which reacts with the iron ore, as well as heat to melt the iron
4. Finally, the tap hole at the bottom of the furnace is opened and molten iron and slag (impurities) are drained



(Dreams Time)

07/06/20

106

ED_004926B_00005175-00106

India is the Second Largest Steel Producer in the World in 2019

1. China, 996MT
2. India, 111MT
3. Japan, 99MT
4. USA 88MT

(27 Jan 2020, World Steel)



Iron Ore Key Developments

2011-12: Based on Justice M B Shah Commission report citing illegal mining, **Supreme Court orders the banning of 115 iron ore mines in Karnataka in July 2011 and 90 iron ore mines in Goa in September 2012** (2012, Business Today)

The decision also partially halted mining in the states of Odisha and Jharkhand (2020 Brookings)

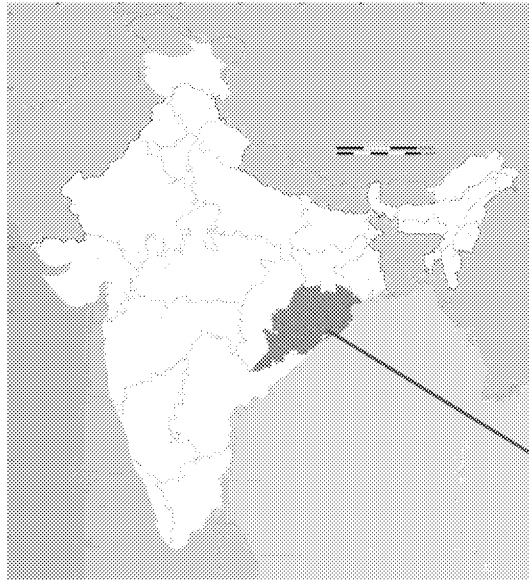
-India's iron ore shipments plunged from nearly 168 million tonnes in 2010-11, to 18 million tonnes in 2012-13 (2014, Hindu Business Line)

-Karnataka ban lifted in April 2013 with production cap of 30MT a year (2014, Economic Times)

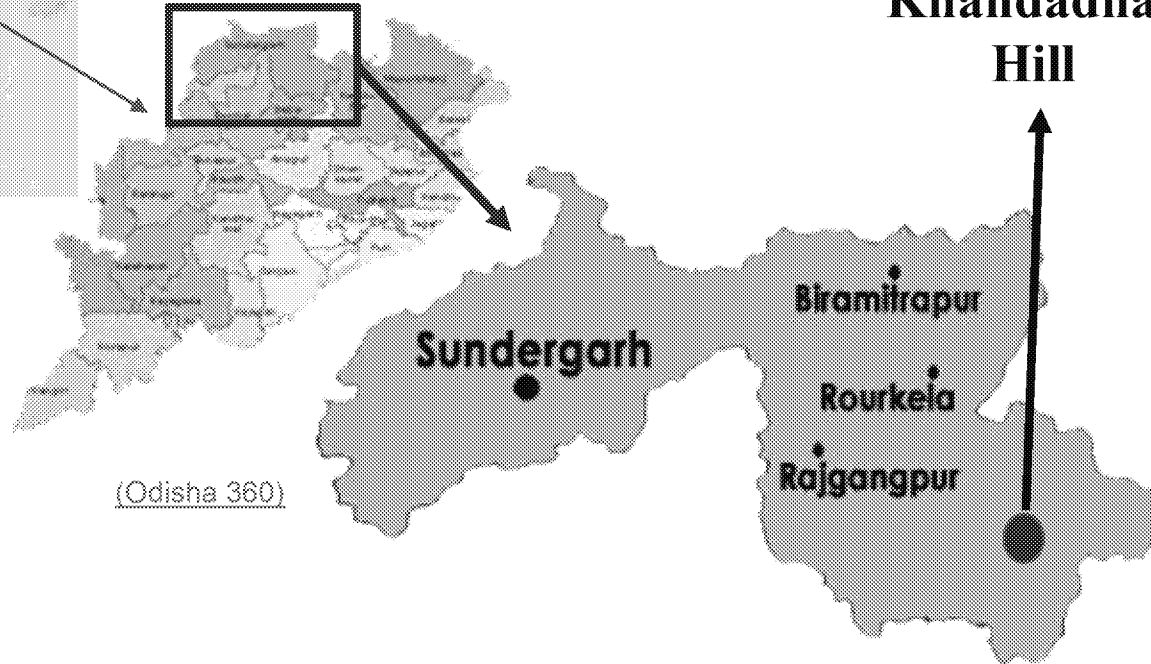
-Goa ban lifted in April 2014 with production cap of 20MT a year [banned again 2018***] (2014, BBC)

February 2018: a Supreme Court order cancelled 88 iron ore mining leases in Goa owing to a technical review of the government's renewal of leases (2019, Hindu Business Line)

Odisha's Khandadhar Hill



(Wikipedia)



**Approximate
location of
Khandadhar
Hill**

Odisha, Sundergarh District: Khandadhar Hill Iron Ore

Starting Year: 2005

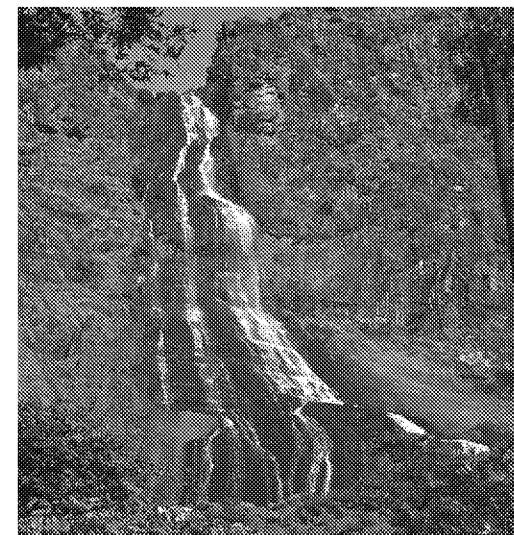
Number of People Affected: 30,000

Land Area Affected (in ha): 2,083

Reasons/Nature of Land Conflict: Iron Ore Mining

Type of Land: Common (Forest)

(Khandadhar
Waterfall Sacred
to Indigenous
2012 Outlook India)



Summary of the conflict:

Khandadhar Hill is home to a **vulnerable tribal community, Paudi Bhuyans**, and a number of **plant and animal species**. The state-owned Odisha Mining Corporation (OMC) has been mining the iron ore reserve from the other side of Khandadhar, leading to drying up of perennial streams and rivulets causing problems to the Paudi Bhuyan community.

2005: POSCO (South Korean) signed a memorandum of understanding with Odisha government to mine iron ore from the hill for POSCO's proposed plant in Jagatsinghpur and for export. **The Paudi Bhuyans opposing the mine because it would deprive them of their livelihood.**

Jan 26-28, 2016: Protest in Khandadhar under the banner of Khandadhar Surakhya Samiti. OMC has signed pact with steel makers Adhunik metaliks and Rexion strips to supply iron ore for next five year from its kumitar pahar mines in Khandadhar area in koira mining circle of Sundargarh district. On the other hand, tribals say that OMC has been gradually capturing land from them to sell it to mining corporations.

According to most recent information, people continue to protest (Land Conflict Watch - Khandadhar Hill)

Khandadhar Hill's Forest Clearance Transferred, Community Still Opposed

August 2016: POSCO announces the end of the Khandadhar Hill's Iron Ore project for its long environmental litigation in the NGT and for the people's opposition [\(EIA\)](#)

June 2017: Odisha government approves giving the area to JSW Utkal Steel Limited. The project was then sent to the MoEFCC Forest Advisory Committee (FAC) seeking transfer of the forest clearance [\(4 Mar 2020, Quartz India\)](#)

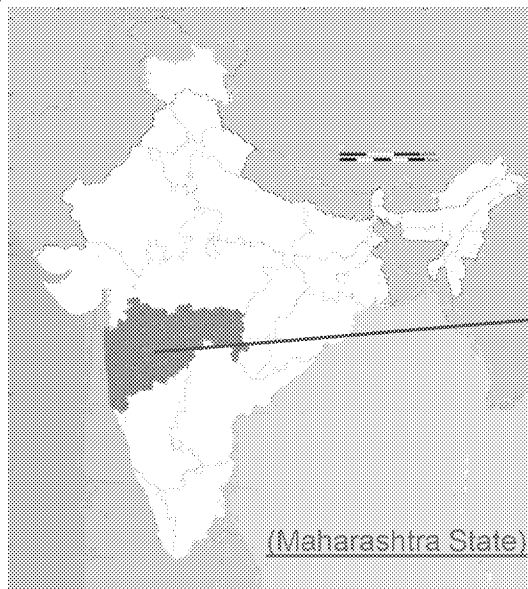
August 2019: FAC notes that the project now requires forest area of 1,083.691 hectares against the earlier approved 1,253.225 hectares. It had noted that 169.534 hectares of balance forest land shall be returned to the forest department and that shall be adequately afforested with native forest species and shall be protected at the cost of the new user agency [\(16 Aug 2019, Forest Clearance\)](#)

December 2019: In a public hearing, the villagers protest against the project and demand the scrapping of the project. The villagers allege that it is illegal for the Odisha government after POSCO's pullout to take the land that was previously in the village's land bank [\(4 Mar 2020, Quartz India\)](#)

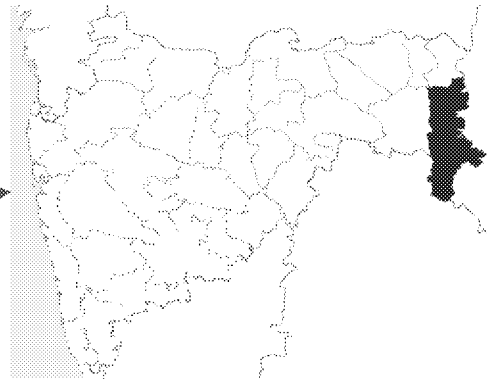
February 25, 2020: Odisha finds buyers for 21 of the 24 operational mines whose leases are expiring while auctions for three remaining mines will be concluded soon [\(25 Feb 2020, Argus\)](#)

February 25, 2020: The people of village Dinkia pass a unanimous resolution noting that people have been staying at the place for hundreds of years and have been dependent on the forest for their survival. The **resolution demanded that their individual and community rights over forests must be recognised first and the consent of the *palli sabha* (village council) must be taken before that forest is diverted for non-forest usage** [\(4 Mar 2020, Mongabay\)](#)

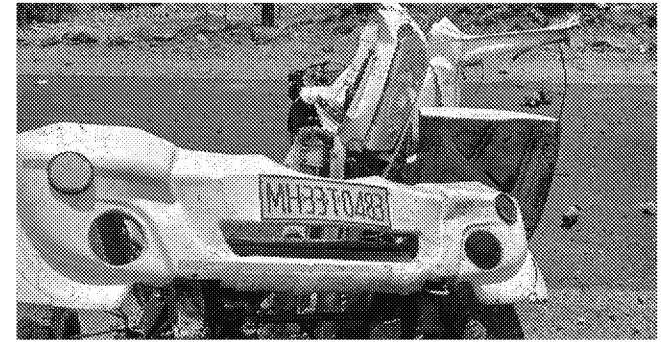
Maharashtra, Gadchiroli District



(Maharashtra State)



(Gadchiroli District)



(Remains of a police vehicle that was blown up in the suspected Maoist attack)

“For Adivasis in Maharashtra’s Gadchiroli, mining has brought increased militarisation and violence” (13 May 2018, Scroll)

The government has opened up some 348 hectares of land in Surjagarh for mining iron ore. Lloyd’s Metal and Energy Limited, which is allowed to extract 1.2 million tonnes of ore a year, is already mining while Gopani Iron, Corporate Ispat Alloys and Jindal Steel Works Ispat have secured permission. **The villagers oppose the mining, saying it threatens their environment and livelihood.** (13 May 2018, Scroll)

May 1 2019: a device planted by suspected Maoists blew up a police vehicle, killing 15 security personnel and a driver in the state’s Gadchiroli district.

(1 May 2019, Scroll)

Maharashtra: Arbitrary detention and judicial harassment of Mahesh Raut and 4 others

Mahesh Raut is a land rights activist working with Gram Sabhas in the mining areas of Gadchiroli, in Surjagad District. Raut highlights villagers' grievances regarding the region's iron ore mining. Even after strong resistance against private mining companies, the state in past years has granted permission to mine iron ore on over 348 hectares of land in the Surjagad region. [\(2018, The Wire\)](#)

In the early hours of 6 June 2018 five human rights defenders, Surendra Gadling, Rona Wilson, Sudhir Dhawale, Shoma Sen and **Mahesh Raut** were arrested in different parts of India. They are being **charged under the Unlawful Activities (Prevention) Act (UAPA)** with spreading controversial pamphlets and delivering hate speeches in connection with the Bhima Koregaon violence that broke out in January 2018 [\(Frontline Defenders\)](#)

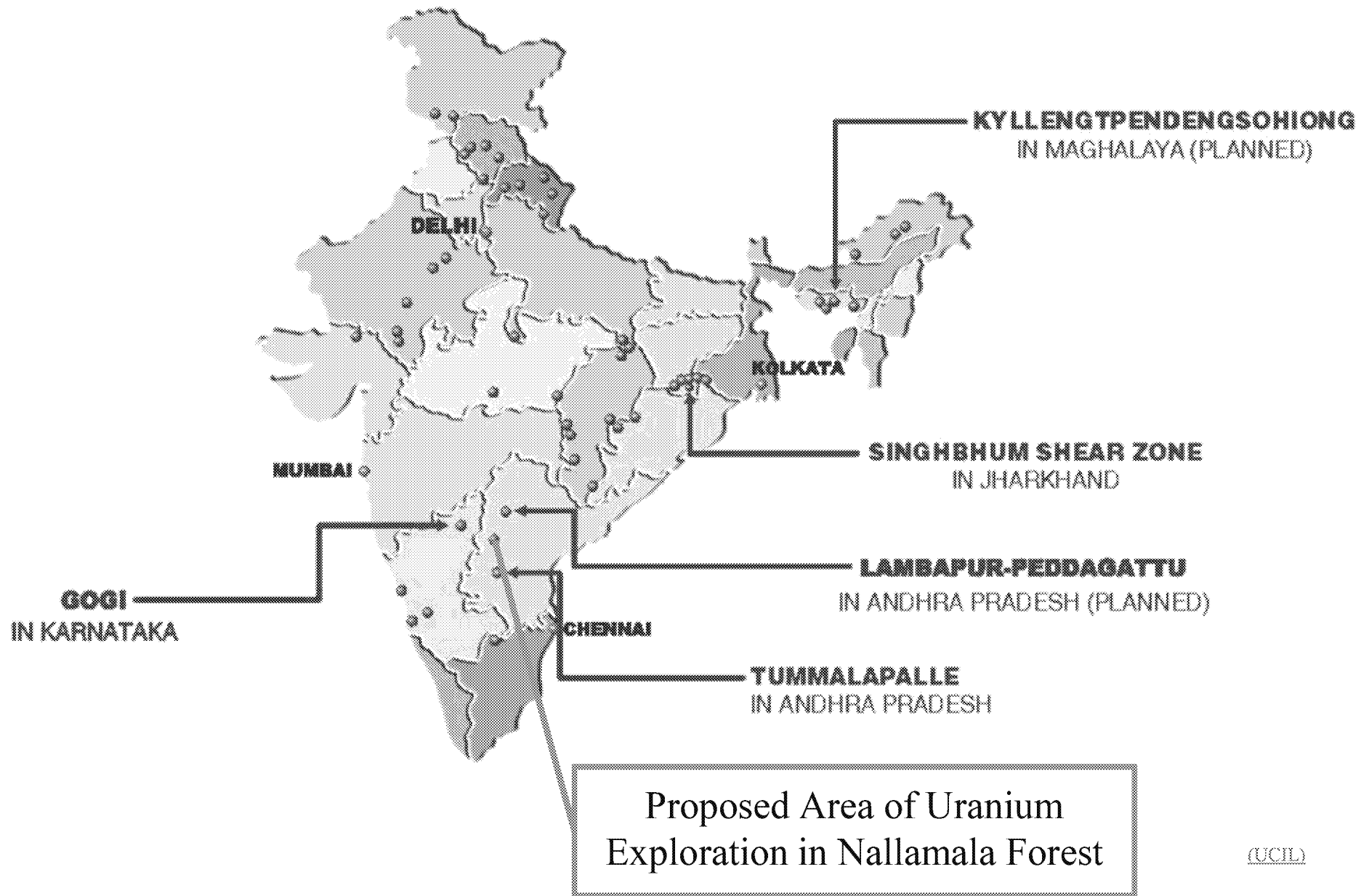
As of July 1, 2020, his 33rd birthday, Raut was still being held at Taloja Central Jail [\(2020, sabrangindia\)](#)



[\(2018, The Wire\)](#)

Uranium

Uranium Mining and Exploration



(UCIL)

Strategic Importance of Uranium

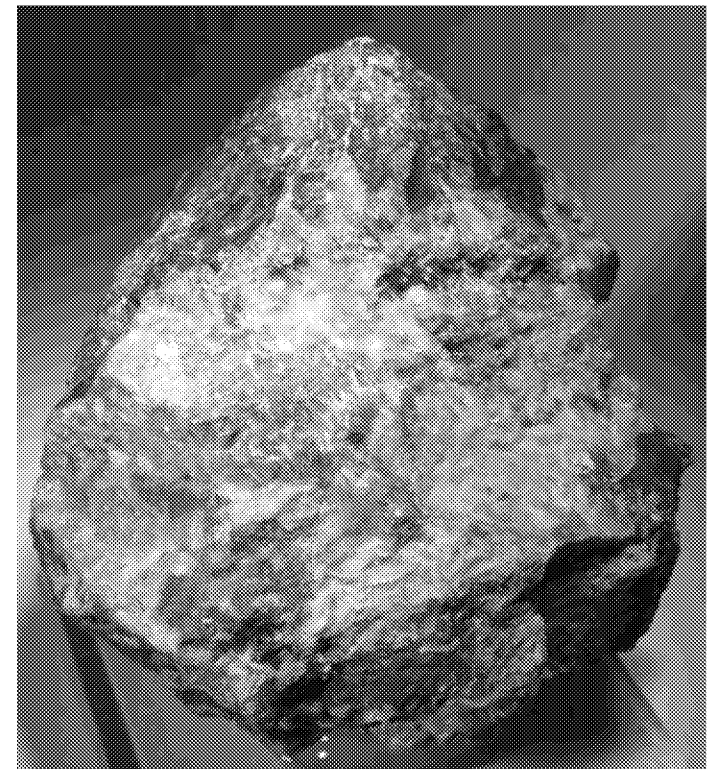
India **produces some uranium** -- Nine operational uranium mines and three mills produced 308 tonnes of uranium (est.) in 2019* (World Nuclear, 2019)

India **relies heavily on imported uranium**, but other atomic minerals such as Thorium occur in greater quantities and are exported (2018, Institute for Energy Research and 2020 World Nuclear)

India aims to:

- **Reduce its dependency** on imported uranium (2018, Economic Times)
- **Build a Strategic Uranium Reserve** (2018, Economic Times)
- **Triple its nuclear power generation** in the next 10 years (2020, Indian Parliament)
- **Achieve a tenfold increase in uranium production** by 2031 (2018, World Nuclear News)

As of 2017, India was operating 8 reactors fueled by indigenous uranium and 14 fueled by imported, enriched uranium* (2020, World Nuclear)



Mined Uranium

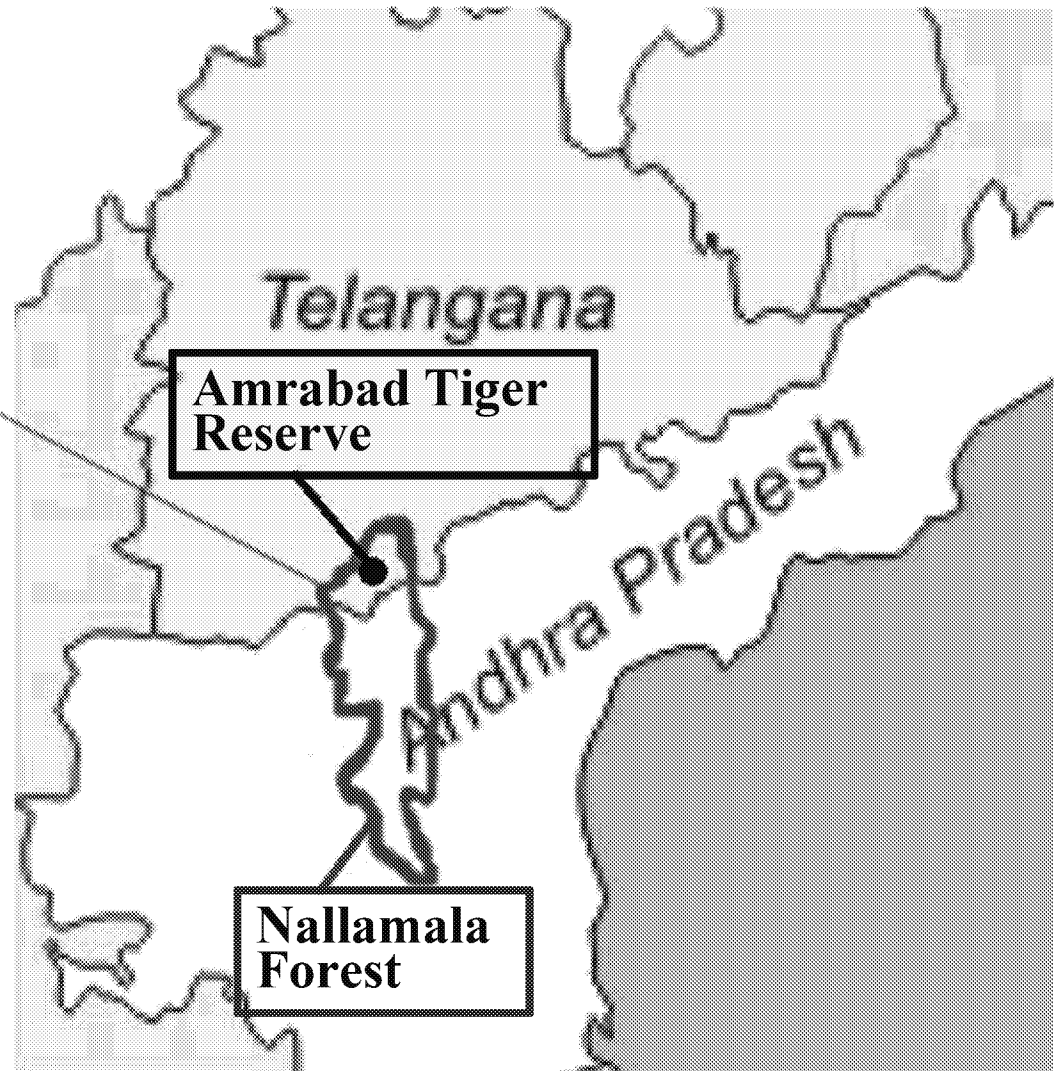
(2018, Atomic Heritage Foundation)

Proposed Uranium Mining in the Nallamala Forest and Amrabad Tiger Reserve



In 2009, the **Atomic Minerals Directorate for exploration and research (AMD)** sought a forest clearance for **borehole prospecting** across 83km² in the Nallamala hills region of Telangana, 76km² of which lies in the **Amrabad Tiger Reserve**

(Forest Clearances)



Environmental Concerns: Uranium Exploration in Nallamala Forest

Major concerns:

- **Water contamination** from exploratory boreholes
- **Displacement of the Chenchus**
 - a scheduled tribe and **Particularly Vulnerable Tribal Group (PVTG)**, that relies on hunting and gathering in the Nallamala forest*
- **Disturbing the protected tiger population**
 - India's second-largest tiger preserve
 - Spans Nagarjuna Sagar and Achampet
- **Disturbing the flora and fauna of the Nallamala Hills**

70,000 LIVES AT STAKE



48 villages to be affected, 70,000 people reside in proposed mining areas

► Amrabad Tiger Reserve is home to 22 tigers and 100 leopards

Thousands protested asking for the withdrawal of clearances for uranium mining in Nagarkurnool on Monday

► In 2016, DFO said the area was not suitable for exploration and mining

4,000 borewells to be dug in 83 square kilometres

(2019, Times of India)

Protest after National Board for Wildlife Clears Exploration,

Jun 2016: Divisional Forest Officers (DFO) where tiger reserve is located submit their recommendations to the Chief Conservator of Forests on proposed plan to survey uranium in the Nallamala Forest (2016, DFO)

- DFO of Nagarjuna Sagar, Telangana **recommends the plan not be approved**
- DFO of Achampet, Telangana **recommends plan's approval**

Jun 2016: Chief Conservator of Forests/Field Director of the Amrabad Tiger Reserve agrees with the recommendation of the DFO of Nagarjuna Sagar [not to recommend plan approval] (2016, CCF Forest Clearance)

Aug 2016: Principal Chief Conservator of Forests of Telangana (head of the state forest department) **recommends the proposed uranium exploration** (India Forest Clearances)

Dec 2016: The Telangana State Board for Wildlife recommends the proposal (2016, Times of India)

April 2017: The National Board for Wildlife clears the proposal.

Apr 2017: In protest, forest-dwellers and villagers in Nagarkurnool district (Telangana) observe a total shutdown (2017, Hindustan Times)

Forest Advisory Committee In-Principle Approval

May 22, 2019: MoEFCC's Forest Advisory Committee (or FAC) grants "in-principle approval" for the proposal, citing uranium's "critical importance" to the country and requesting additional information on the size and location of the boreholes. [\(2019, Forest Clearance\)](#)

- NGOs say the application specified the number of families and adivasis to be displaced would be NIL, a claim that activists and locals deny. [\(Aug 13, 2019 The News Minute\)](#)

May 2019: In response to FAC approval, many activists turn to social media to campaign against the decision. Some Telangana officials speak out against the decision [\(2019, Intercontinental Cry\)](#)

Aug 3, 2019: M Kodandaram, President of activist group Telangana Jana Samithi, is arrested while on his way to protest in Amrabad. Reportedly, some **protestors were injured in a scuffle with police** when he was taken into custody [\(2019, The Times of India\)](#)



Sept 3, 2019: The FAC re-requests the documents specified when in-principle approval was granted [\(2019, Forest Clearance\)](#)

Environmental activist M. Kodandaram was arrested during a protest in 2019 [Image: 2019, Telugu Bulletin](#)

Unrest as Uranium Exploration Remains Pending

Sept 9, 2019: Thousands of protestors, led by Congress Party members, block traffic for several hours along Hyderabad-Srisialam Highway. Congress leader **Vamshi Krishna is arrested**, but is released after protestors storm the police station where he was being held ([2019, Times of India](#) and [The Hans India](#))

Sept 12, 2019: Chenchu tribals deny entry to Uranium Corporation of India Ltd (UCIL) workers, who tried to enter the forest area where the proposed test bores would be ([2019, Indian Express](#))

Sept 16, 2019: Telangana State Legislative Assembly unanimously passes resolution opposing exploration for uranium and its mining in Nallamala forest area ([2019, The Hindu](#))

April/May 2020: The FAC considers the uranium exploration proposal and requests additional information from the Telangana government.

Information requested under “in-principle approval” in May 2019 still has not been received. **Approval**

remains pending ([2019, Ministry of Environment-Forest Conservation](#))



Protestors along the Srisialam Highway Image: 2019, [Telegaga Today](#)

Meghalaya Uranium Mining, Reprisals

Jan 1, 2018: Home Ministry revokes NGO Center for Social Development's (CSD) license for reporting on uranium mining in Meghalaya. [\(2018, The Wire\)](#)

- CSD reports harassment from Central Reserve Police Force, a federal law enforcement agency under the Ministry of Home Affairs

Sand Mining

Illegal Minor Metals Mining

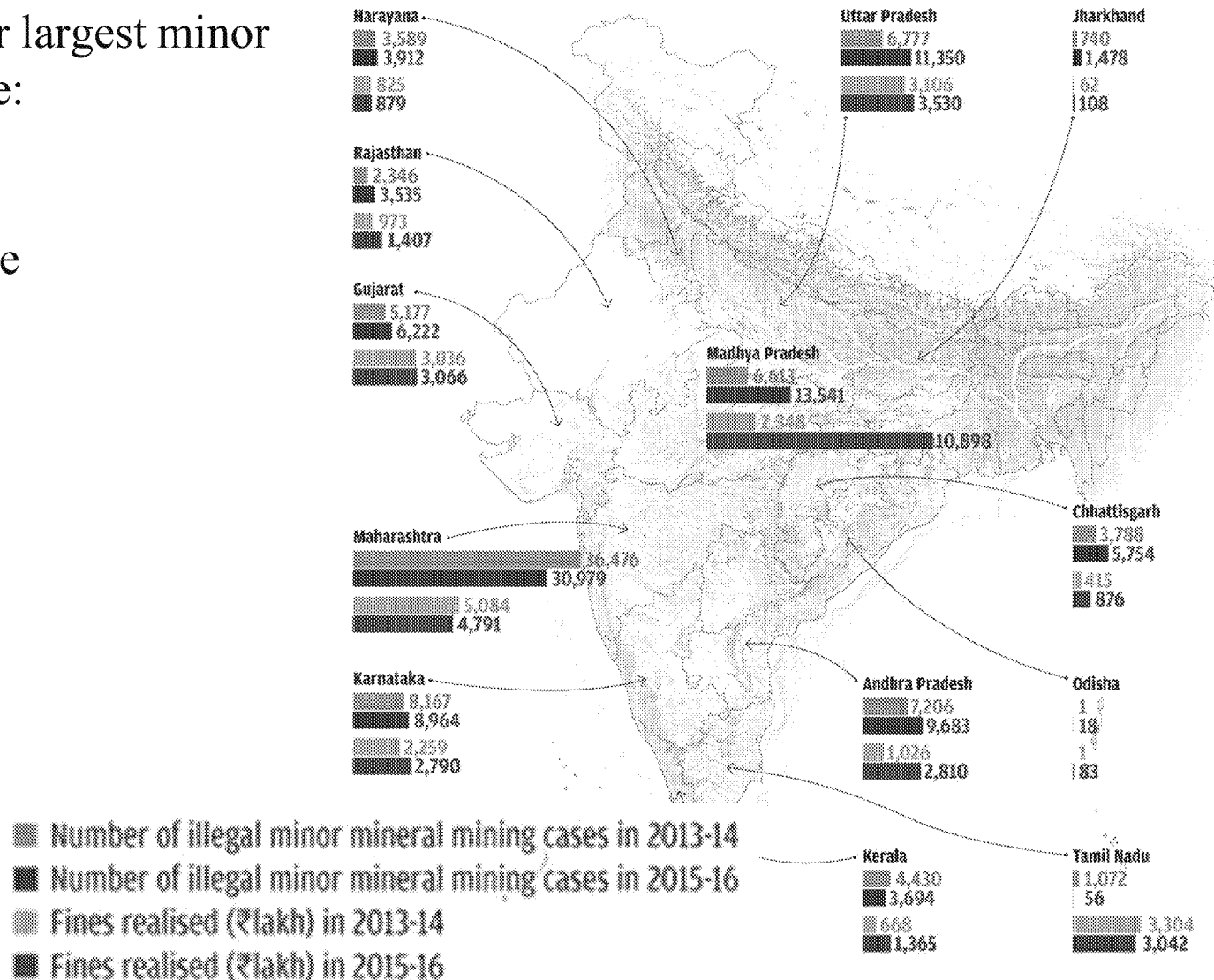
In India, the four largest minor metals mined are:

- Road metals
- Building stone
- Brick earth
- Sand

(2017 Down to Earth)

Countrywide malaise

As per the Union Ministry of Mines, sand is the fourth most important minor mineral in terms of production after road metals, building stone and brick earth. Yet the government does not collect data on the volume of illegally mined sand. Cases of illegal mining of minor minerals are present across the country

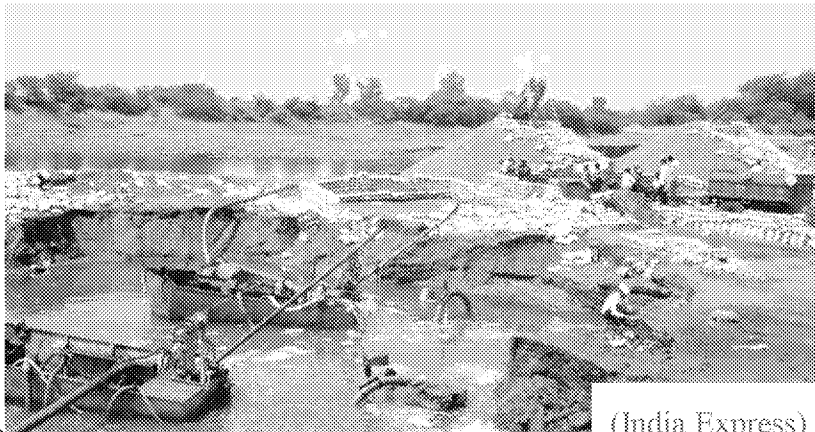


Sand Mining Background

Sand mining is the extraction of sand through an open pit but sometimes mined from inland dunes from oceans, riverbeds and beaches. It is defined under section 3(e) of Mines and Mineral Development and Regulation Act, 1957 (MMDR Act). This law has been implemented by the government to prevent illegal mining ([Legal Service India](#))

India has a growing demand for construction materials such as sand to build roads, airports, malls and homes. Sand is in high demand due to its ability to chemically transform into glass, asphalt, and concrete ([2017, Reuters](#))

- **For each tonne of cement, the building industry needs about six to seven times more tonnes of sand and gravel** ([2014, UNEP](#))
- In 2016, the demand of sand from all the uses discussed above is estimated to be about **751 million tonnes/annum**. 2017 report estimated that demand in **2020 will be about 2 times the 2016 demand** ([2016, International Climate Initiative](#))
- Demand growing at 6-7% annually even as the quantity of natural generation of sand is static ([2020, Mongabay](#))



Sand Mining Environmental Impact

As supplies of sand close to major cities such as Delhi and Mumbai have become exhausted, developers are turning to more remote regions to source it, **bringing them into conflict with smaller, usually vulnerable, communities.**

Groundwater shortages, flooding, and depletion of fish and other animal life often follow in the wake of unsustainable mining, which activists claim can also **weaken bridges** and barrages along the path of heavily mined rivers, leading some to collapse. (2017, The Guardian)

Impacts on	Description
Biodiversity	Impacts on related ecosystems (for example fisheries)
Land losses	Both inland and coastal through erosion
Hydrological function	Change in water flows, flood regulation and marine currents
Water supply	Through lowering of the water table and pollution
Infrastructures	Damage to bridges, river embankments and coastal infrastructures
Climate	Directly through transport emissions, indirectly through cement production
Landscape	Coastal erosion, changes in deltaic structures, quarries, pollution of rivers
Extreme events	Decline of protection against extreme events (flood, drought, storm surge)

(2020, Green Facts)

Sand Mining Illegal Activity

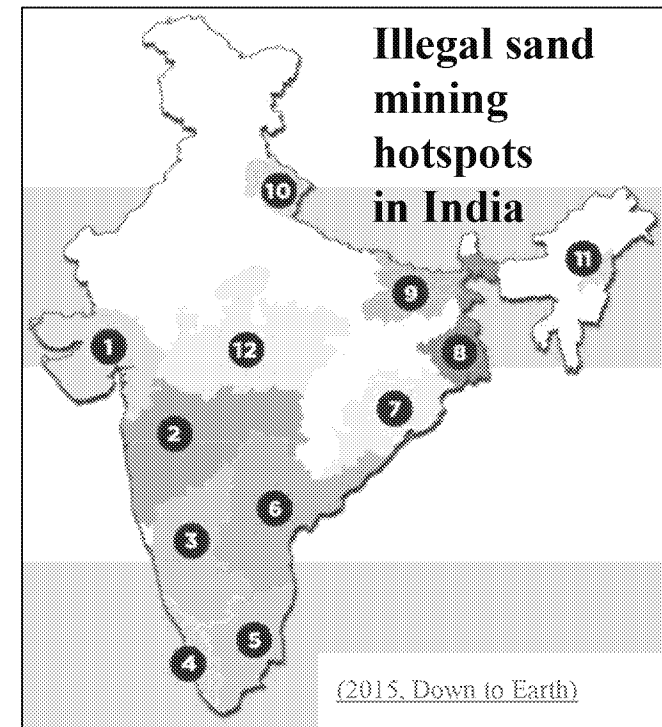
Sand mining has been declared illegal in most parts of India, but sand is in such high demand that there is a black market for it. **The term “sand mafia,” is used to describe the whole range of people who profit from illegal sand mining. The sand mafias respond with violence to anyone who endeavors to stop them.** Police and politicians have no motivation to castigate the sand mafias due to the lucrative business of sand mining. In fact, a cascade of bribes go to the topmost levels in the government. (2017, New York Times)

There is a direct connection between big infrastructure, irrigation projects and illegal sand mining (2019, South Asia Network on Dams, Rivers, and People)

- **According to the Union Ministry of Environment, Forest and Climate Change guidelines, sand is a minor mineral and the mining of sand comes under the state jurisdiction. Hence, illegal sand mining is rampant in states that are seeing huge infrastructure and irrigation projects**

The contractors are all backed by politicians and the government servants are hand in glove with them (2018, Deccan Herald)

- Mallikarjun Bhattrahalli, a social activist from Chikkanayakanahalli in Tumakuru district, explains: “We used to complain about illegal sand mining to officials. Now we have stopped complaining because it is turning out to be valuable information for the officials to make more money.”



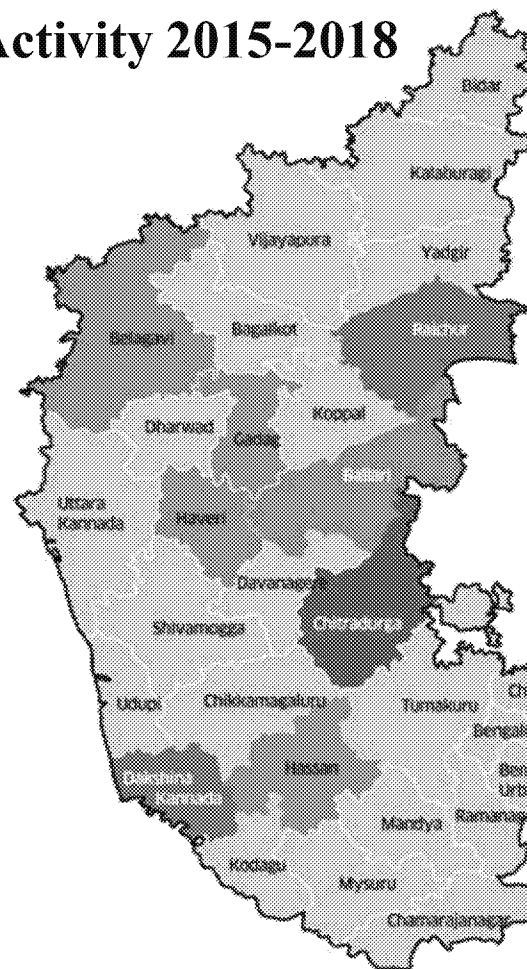
(1: Gujarat; 2: Maharashtra; 3: Karnataka; 4: Kerala; 5: Tamil Nadu; 6: Andhra Pradesh; 7: Odisha; 8: West Bengal; 9: Bihar; 10: Uttarakhand; 11: Nagaland; 12: Madhya Pradesh)

Karnataka* Sand Mining Illegal Activity 2015-2018

(Sep 17, 2018 Deccan Herald)

RIGHT AND WRONG

CONDITIONS	VIOLATIONS
■ The licence issuing committees identify sand deposits and assess recoverable sand in each block	■ The licensee always deviates and continues sand mining beyond allocated block.
■ PWD establishes a camp office with computer facility for the administration of sand extraction, transportation and storage.	■ There are no such camps with facilities such as computerised weighbridge to check the load.
■ PWD has to establish check posts to regulate transportation of sand.	■ Check posts are an eyewash in most of the districts. They collect monthly hafta and ignore violations.
■ All sand-laden vehicles to be fitted with GPS/Rfid and have to move in approved routes.	■ GPS-fitted vehicles are operational in some districts. However, the system is manipulated and sometimes the GPS fitted vehicle would be stationed at a garage and some other vehicle would carry sand.
■ Use of JCB/dredger and mechanised boats is prohibited in the coastal region.	■ In almost all major blocks, machines are used to extract sand.



Major districts that have permits to mine sand

CHITRADURGA
9.81 lakh MT
RAICHUR
6.61 lakh MT
DAKSHINA KANNADA
6.11 lakh MT
BALLARI
5.96 lakh MT
HASSAN
4.60 lakh MT
BELAGAVI
3.28 lakh MT
HAVERI
3.19 lakh MT
GADAG
2.71 lakh MT

The scenario (2015 -2018)

Illegal sand mining		Illegal transportation		Illegal sand storage		Filter sand	
FIRs lodged	No of cases	FIRs lodged	No of cases	FIRs lodged	No of cases	FIRs lodged	No of cases
937	1,530	8,165	18,510	231	435	266	304
Fine amount ₹2.49 cr		Fine amount ₹23.04 cr		Fine amount ₹17.44 cr		Fine amount ₹29.30 L	
TOTAL		FIRs lodged 9,599		Fine amount ₹43.27 cr		No of cases 20,779	

Illegal Sand Mining Violence 2018: at least 28 People killed across India

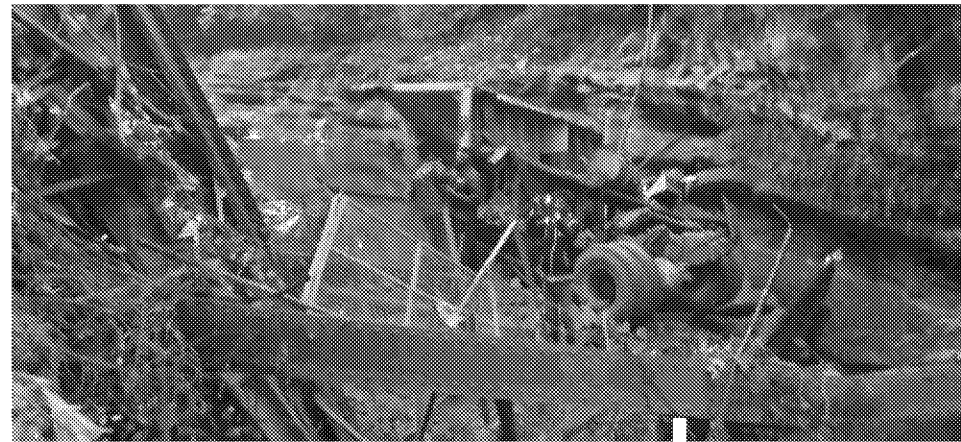


(2019, sandrp)

Many government officials were killed while taking action against illegal sand extraction in 2018. So were the lethal attacks on reporters and citizens for exposing illegalities and objecting to illegal mining activities.

Many people lost their lives in accidents related to illegal sand mining related incidents which could have been avoided

- At least two people killed and three others were injured after an iron bridge on Tons River collapsed in Birpur (2018, News Nation)
- collapse reportedly due to overloaded sand trucks



(2018, News Nation)

Telangana, Kamareddy District: Village Revenue Assistant Killed January 2018

B. Sailu, a public servant of the Marthad village in the Kamareddy District, was protesting and attempting to halt the alleged illegal extraction and transportation of sand. This illegal extraction of sand, among other minerals, within the region, has led to a so-called “Sand Mafia” and “Sand smugglers” that have been operating in the region with impunity. [\(HRD Memorial\)](#)

Sailu was acting as the Village Revenue Assistant for the Karegaon village, India. He was **killed when the tractor struck him when he tried to stop it for illegally transporting sand leading** to his instant death, the family members alleged. Sailu’s family members and villagers staged a protest alleging that sand mafia is behind his death and demanded police to identify the vehicle involved in the accident and announce compensation to the deceased family [\(Business & Human Rights Resource Centre\)](#)



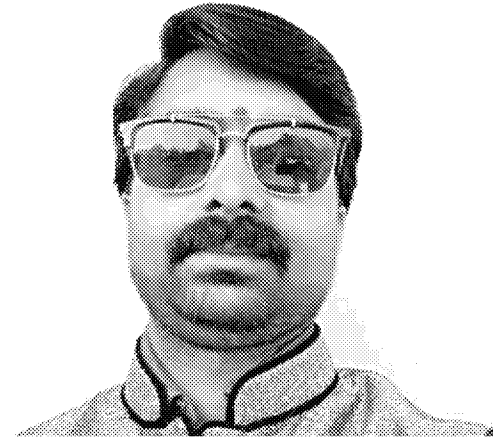
[\(SANDRP\)](#)



[\(Sailu's wife, Saiyamma\)](#)

Madhya Pradesh, Bhind District: Reporter Killed March 2018

Sandeep Sharma: A reporter for the local News World television channel in the state's Bhind district **was driving on his motorbike to a government event when a truck hit him and ran him over, according to the channel's bureau chief, Vikas Purohit, who witnessed the collision.** Purohit told CPJ that he took Sharma to the local hospital where the journalist was declared dead from injuries sustained in the crash.



(Deccan Chronicle)

Sharma began receiving death threats last year after publishing two stories in July and October 2017 on alleged police corruption and illegal sand mining. The journalists shot a video that showed how a senior police officer accepted a bribe to allow the movement of vehicles carrying illegally mined sand

(Committee to Protect Journalists)



In the video footage, Sharma was seen on a motorbike before being run over by a truck [CCTV screenshot]

(Al Jazeera, 2018)

Karnataka, Raichur District: Defender attacked May 2018

Hanumantha Bhang is a social activist in Raichur, who has been fighting against the illegal sand mining relentlessly for years, including through filing a public interest litigation before the Karnataka High Court and the court has directed the officials to submit a detailed report on illegal sand mining in the district. On May 31, 2018, he **had visited Krishna riverbed** at Koolooru village in Shahapur taluk, in Raichur district, on receiving information about illegal extraction and transportation of sand. **A known activist in the district, Hanumantha was soon identified and the perpetrators pounced on him.** They kicked him and attempted to drown him in the river. When **he tried to film the illegal loading of sand, the perpetrators snatched his mobile phone and money.** “I somehow survived the attack. A few in the mob got to know that I have been actively petitioning various departments against illegal sand mining,” he said after the attack.



(Business & Human Rights Resource Centre)

Excavators extracting sand
from River Hemavathi near
Sakaleshpur (Karnataka)

(Deccan Herald)

Madhya Pradesh, Morena District: Deputy Forest Ranger killed September 2018

Subedar Singh Kushwaha was a deputy forest ranger, stationed at a check post close to national highway, tasked with curbing illegal excavation of sand from the Chambal riverbed, **was killed at while inspecting vehicles coming from the riverside. Kushwaha was trying to intercept a tractor-trolley laden with illegally mined sand when another one intentionally mowed him down from behind**, police had said, adding that both vehicles fled the scene. They said, "We impounded the tractor-trolley laden with sand. Devendra Gurjar has been charged with murder..." Officials said sand mafia is active in the region and illegal mining on the Chambal riverbed was threatening the endangered crocodile (gharial) population there. Chambal riverbed is under the jurisdiction of the National Chambal Gharial Wildlife Sanctuary. (Business & Human Rights Resource Centre)



CCTV footage of deputy ranger Subedar Singh Kushwaha moments before being run over in Morena

(Times of India)



(Times of India)

Jharkhand, Khunti District: Journalist Killed

December 2018

On 9 December 2018, the body of **Amit Topno, a journalist** and video volunteer, **was found with a bullet to his head**. Amit had reported on the Pathalgadi resistance in Khunti district of Jharkhand. The Pathalgadi movement began as a tribal resistance against the new state land policies, including forest and community lands earmarked for industrial use. Amit also reported on issues like illegal sand mining.

(Business & Human Rights Resource Centre)

Topno reported fearlessly on issues like sand mining, illegal alcohol sales, Adivasi rights, education, sanitation, human trafficking, land rights, culture and most recently the Pathalgadi movement. He followed up his video reports with on-the-ground action to solve the problem he was reporting. He held community screenings, conducted village meetings, assisted the community in writing applications and approaching government officials and worked towards ensuring accountability. He is remembered by those who knew him as an inquisitive, warm, fun loving and an extremely helpful and courageous individual. Many civil society organizations protested his murder.

(HRD Memorial)



(HRD Memorial)

Karnataka, Raichur District: Village Accountant Killed December 2018

Saheb Patel, a village accountant was killed after he was run over by a sand-laden truck in Karnataka's Raichur district on Saturday. As per reports, the truck ran over Saheb Patel after he tried to intercept the truck during a routine check for illegal sand mining activity.

Patel and his friend Irfan Ali were returning in a two-wheeler after their regular work at Cheekalaparvi village. While they stopped for tea at Buranapooru village, Patel saw a tipper coming from Cheekalaparvi and signalled the driver to stop. Patel asked for the driver's license and this led to arguments. **The tipper driver ran over Patel instead of showing his license.** Patel was immediately rushed to the nearby hospital but he was declared brought dead by the doctors.

(My Nation)



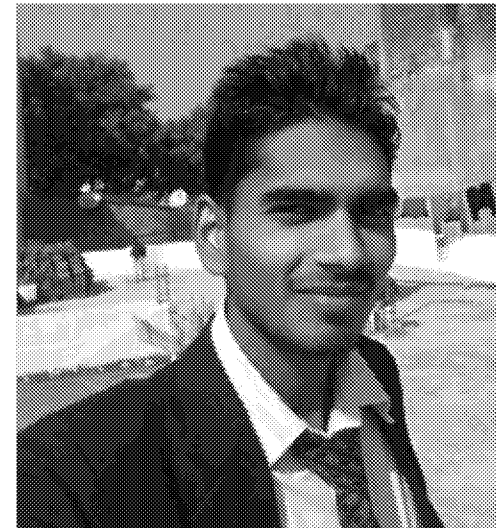
The accountant was conducting a survey when he suspected a lorry to be carrying illegal sand from Tungabhadra River. He tried to stop the vehicle when he was run over by the driver (SANDRP)

Odisha, Mayurbhanj District: Activist killed January 2020

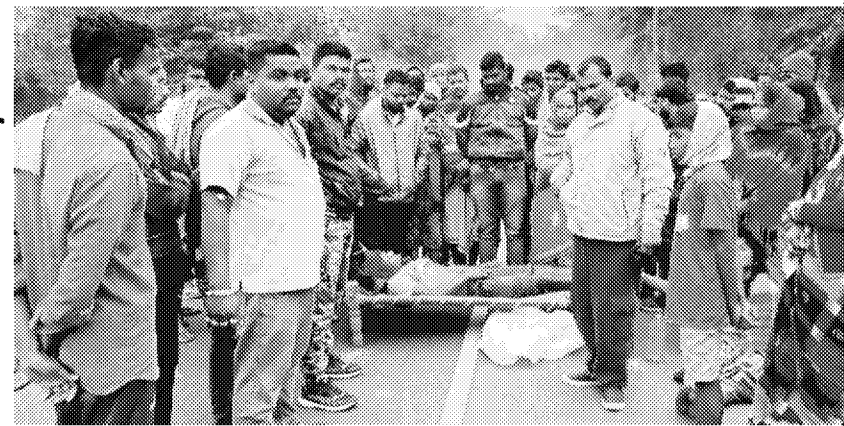
Tension flared up in Rashgovindpur after the body of a local youth, who had been opposing illegal sand mining in the area, was found on the bed of Jambhira river on Thursday morning. The deceased 32-year-old **Mantu Tarei** of Susumari village **was a social activist and spearheading protests against illegal sand mining on Jambhira river bed.**

Locals said that due to movement of heavy sand loading vehicles, the village road had been damaged to such an extent that it was no longer usable. Schoolchildren and emergency vehicles faced a lot of difficulties to commute due to the bad road condition

Villagers spotted Mantu's body lying on the river bed with multiple injury marks and informed his family members. Brother Pintu Tarei alleged that Mantu was murdered by sand mafia. **"My brother had gone to the river bed on Wednesday night to stop the smugglers who were illegally lifting sand. The mafia crushed him to death under a JCB machine as his body bore several grievous injuries,"** he alleged.



(Kathmandu Post)



Kerala, (Trivandrum) District:

Activist killed January 2020

A 36-year-old man was brutally murdered allegedly by sand mafia in the wee hours of Friday with the arm of an earthmover for resisting illegal mining from his compound at Ambalathinkala near Kattakada here. **Sangeeth Balan**, father of two, **was bludgeoned to death around 1am in front of his residence.** Though he was taken to hospital by neighbours, he was declared brought dead.

According to the police, the gang came to Sangeeth's compound around 12.30 am with earthmovers and trucks. Sangeetha [his wife], who was present at the house along with their two children, alerted Sangeeth, who was at his hatchery unit 30km away.

Sangeeth had earlier given permission to the Forest Department and panchayat to build a bridge for taking sand from their compound. But when Sangeeth, who rushed to the spot, realised the six men were part of sand mafia in the locality, he opposed their move.



(25 Jan 2020 New India Express)

Tamil Nadu, Madurai District: Activist Killed

March 2020

Police said that on Saturday, a 22-year-old youth identifies as **Aravindan, son of Vairavakesu** of North Street in Devipattinam in Madurai district, was declared dead in a road accident. Preliminary inquiries revealed that Aravindan had been to Ramanathapuram with his friend identified as Kalyankumar, 23. On return, **a speeding car collided with the two-wheeler in which Aravindan suffered head injuries and dies at the Government Hospital.**

Based on a complaint, when the police probed, it indicated that a sand mining gang had allegedly been behind the death of Aravidan, son of a building contractor. It is said that a gang, which had been arrested recently, was under the impression that Aravindan had informed the police after which they were arrested.

To take revenge, the gang had closely followed him on Saturday and while he was on the two-wheeler, the gang hit him to death thus settling scores. (23 Mar 2020, The Hindu)



(Asia Net News)

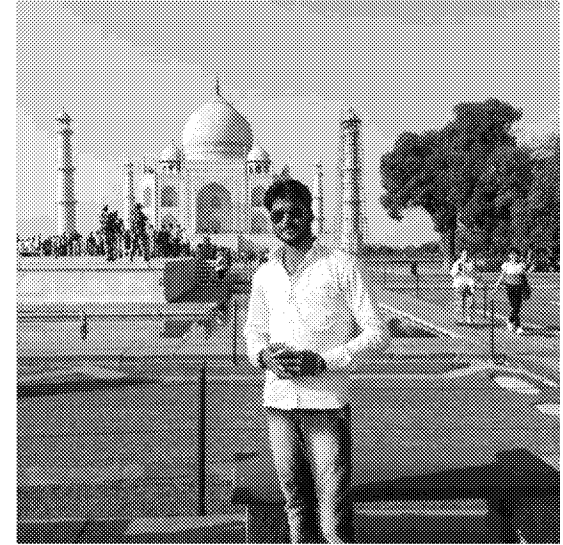
Uttar Pradesh, Unnao District: Journalist Killed June 2020

Journalist Shubham Mani Tripathi (25) was shot by **“unidentified persons”** near the Gangaghat area of Unnao district while he was returning home with a friend on a motorcycle. He was rushed to a hospital in Kanpur, where he died. He worked for a newspaper named Kampu Mail.

On his Facebook profile, Tripathi wrote on **June 14** that an illegal construction by ‘famous land mafia’ had been demolished due to a report he had filed. He said the mafia was angered by this action and had registered a fake application against him to the district magistrate

According to a press release issued by the police, **three people have been arrested and the arrest of two others is being sought.** One of the arrested persons told the police that a “local real estate figure Divya Awasthi arranged the journalist’s killing” in retaliation for Tripathi’s articles and Facebook posts.

(2020 IFJ)



(24 June 2020, The Wire)

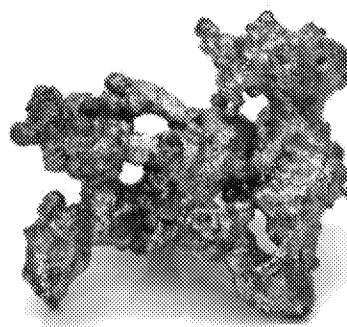
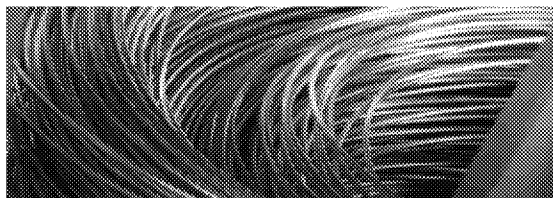
Copper

Copper

- Along with steel and aluminum, copper is **one of the most important metals** due to its thermal conductivity, high strength malleability, and corrosion resistance. It is used in many industrial and household electrical appliances.
- In 2018, India ranked **5th in production of refined copper** globally.
- In 2018, India was a net exporter of refined copper, exporting 'A grade' copper, with 344,000 metric tonnes exported Apr 2017 – Feb 2018 valued at USD 2,201 million. (Exports from Apr 2016-Feb 2017 were USD 1,545 million.
 - Exports increased from 2017-2018 because the global copper market was facing a deficit due to low availability of copper ore. This was beneficial to India "as we have a low consumption base and surplus production."
 - Most of India's copper from 2017-2018 was **exported to China**.

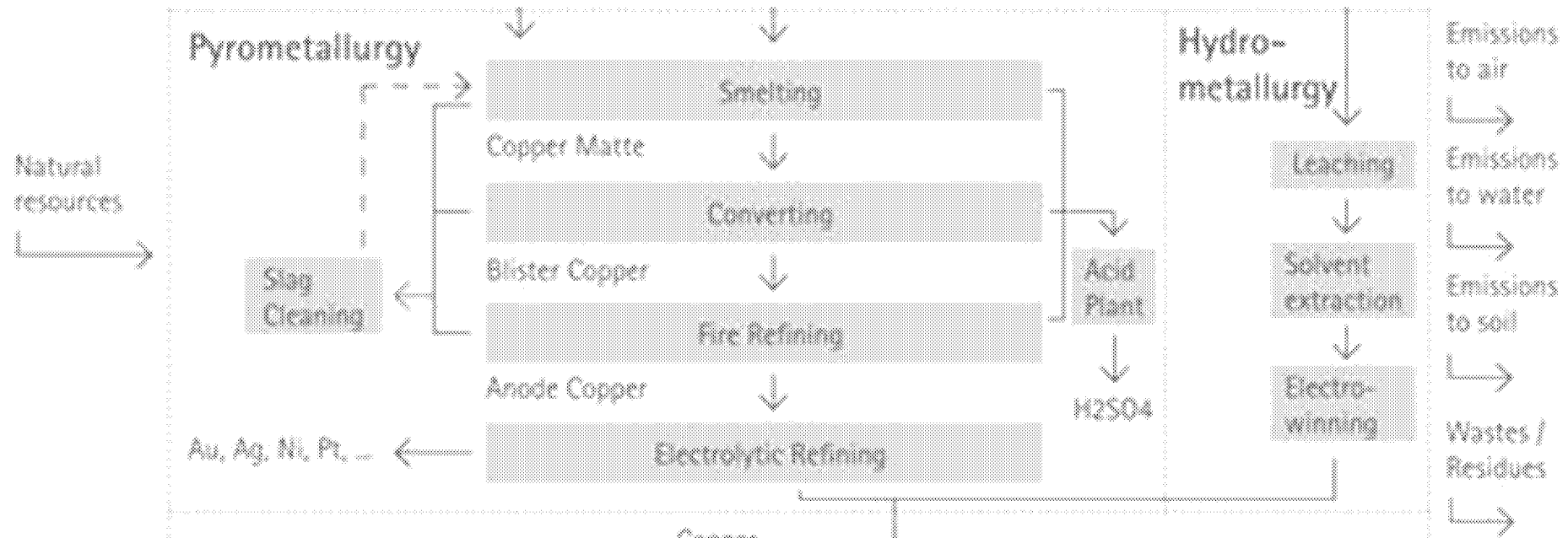
<http://www.careratings.com/upload/NewsFiles/Studies/Copper%20Industry%20Update%20June%202018.pdf>

<https://www.scribd.com/document/98526569/Copper-Deposits-of-India>



The Process of Copper Smelting

Copper Smelting: General Processes



Sterlite's Copper Smelting:

1. Wet copper in a molten bath converted to Matte and Slag
 - a) Matte is transferred to converters for processing into blister copper
 - b) Slag is taken to a slag cleaning furnace of copper recovery, converted to blister copper
2. Blister copper refined by oxidation and reduced to 99.6% purity in anode furnace

(Sterlite Copper)

India's Copper Smelters



(1) Hindustan Copper

- Owned by the India Ministry of Mines
- Capacity in 2005: 31,000 metric tons per year

(2) Hindustan Copper

- Capacity (as of 2005): 17,000 TPA

(3) Sterlite Industries Limited

- Privately owned
- Capacity (as of 2005): 150,000 TPA

(4) Hindustan Copper

- Capacity (as of 2005): 70,000 TPA

(5) Hindalco Industries' subsidiary Indo Gulf Fertilisers and Chemicals

- Privately owned
- Capacity (as of 2005): 150,000 TPA

(International Copper Study Group)

Sterlite Copper in Tamil Nadu State (1)

When: 1997-present

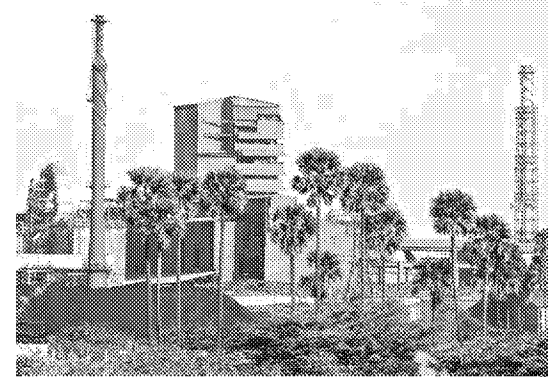
Number of People Affected: 200,000

Land Area Affected (in ha): 131

Reasons/Nature of Land Conflict: Metal Processing,
Copper Smelting

Type of Land: Common

Summary of the conflict:



Sterlite's Copper Smelter

Sterlite Industries has operated a copper smelting plant in Thoothukudi, Tamil Nadu since 1997. Prior to establishing in Tamil Nadu, Sterlite attempted to establish its copper smelter in Maharashtra, Goa, and Gujarat states, all of which rejected the company's plant.

The plant's first environmental clearance was challenged by NGOs and a local political leader Vaiko in the Madras High Court, and throughout its presence in Thoothukudi, residents have lodged complaints of pollution. **Protests date as far back as 1996 by fisher communities afraid of pollution in the nearby Gulf of Mannar.** Periodic inspections of the plant found violations of stipulations made by the Tamil Nadu Pollution Control Board in its consent orders.

2010: Madras High Court attempted to shutter the plant as a result of challenges to the clearances. Sterlite appealed this decision to the Supreme Court.

Sterlite Copper in Tamil Nadu State (2)

Mar 23, 2013: A gas leak at Sterlite's plant [a leak for which Sterlite does not claim responsibility] led to massive protests against Sterlite, after which the TNPCB closed the plant. This closure was overturned by the National Green Tribunal.

Apr 2, 2013: Supreme Court fined Sterlite ~\$13M for pollution and operating without TNPCB consent.

Sterlite was also in the process of pursuing a twofold expansion of production, including the construction of a second plant. By claiming location was on a notified industrial complex, **Sterlite avoided a public hearing.** However, the land was not yet notified as an industrial complex, as it did not have EC.

Jan 25, 2018: At a public hearing for environmental clearance for the industrial park in, local residents expressed outrage at Sterlite and discontent with the expansion plans.

Protests continued throughout early 2018, including a huge **March 24th** protest of hundreds of thousands of Thoothukudi residents.

07/06/20



Protests against Sterlite after 2013 gas leak ([30 Mar 2013, The Hindu](#))



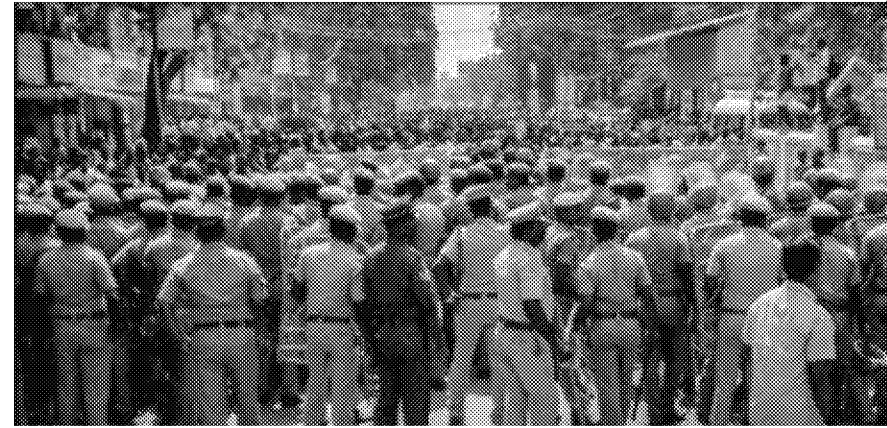
March 24, 2018 Protest against Sterlite in Thoothukudi ([2018, The News Minute](#))

Sterlite Copper in Tamil Nadu State (3)

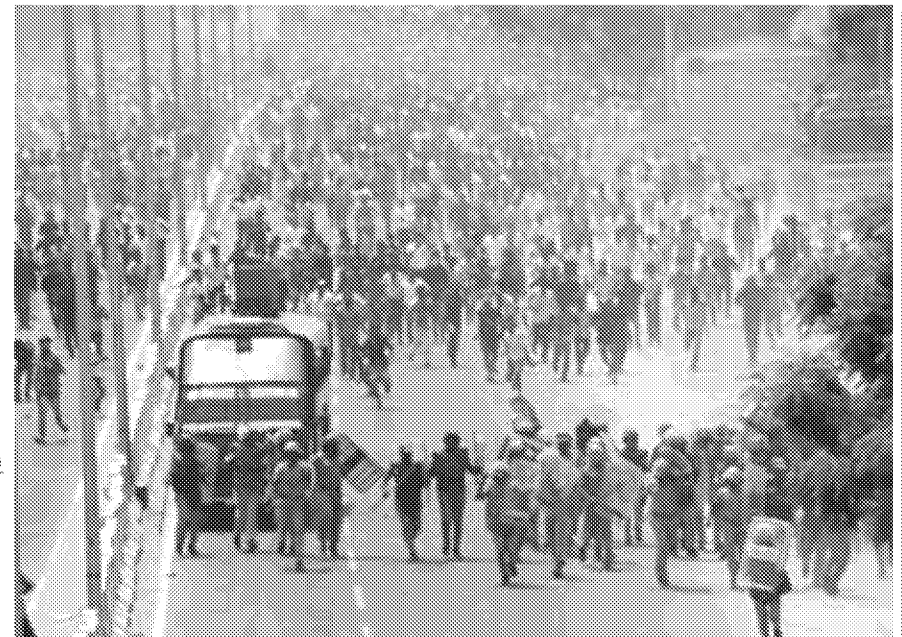
May 22, 2018: On the 100th straight day of protests, residents held a massive procession march to the District Collectorate to demand the plant's closure. Throughout the day, police attempted to barricade and disperse the crowd with batons, rubber bullets, and tear gas. **12 protesters were shot and killed when police opened fire on them. Another protester was killed the following day, and another died several months later after succumbing to a coma caused by a police baton charge.**

Today, the first plant remains **closed pending a Madras High Court decision regarding TNPCB consent**, and the second plant's **construction has been halted pending a public hearing for reinstated environmental clearance.**

(2019, New Indian Express)



(2019, The Indian Express)



<https://img.etimg.com/thumb/width-400,height-300,msid-64834347,imgsize-293121/jpg>



(2019, New Indian Express)

Bauxite Ore, (Alumina, Aluminum)

India's Bauxite Mining and Exports

India has over **2%** percent of global bauxite reserves. (~660 million metric tons of reserves in 2018) (Statista)

In 2017, public mines contributed ~30% of national production. (Statista)

Almost **50% of India's bauxite is located in southern Odisha** (2015, Down to Earth)

Odisha was the leading bauxite-producing state in India, contributing almost half of India's overall bauxite production. (Statista)



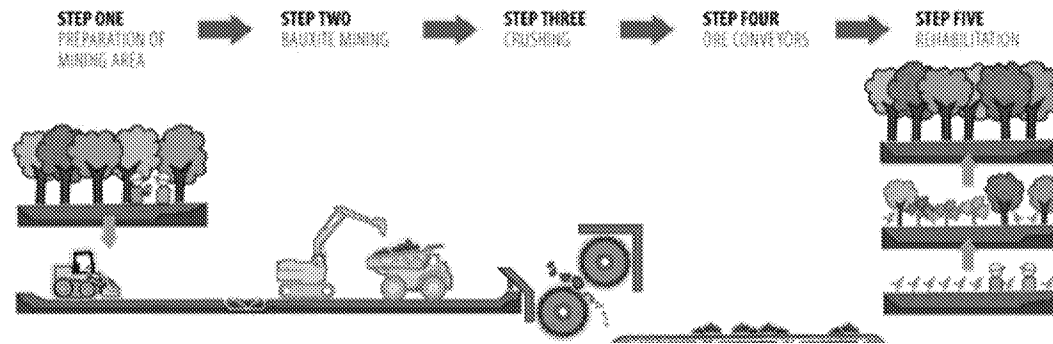
Bauxite Mines in India, Bauxite Mine Location Map

Private and public bauxite mining companies operate in Odisha. (Statista)

Amid increased aluminum exports, India's bauxite exports fell by 45% from 2016-17 to 2017-18 (Indian Bureau of Mines)

A FITCH economics research report estimated that India's bauxite production will grow from 30.9 million tons in 2018 to 50.7 million tons by 2027, but that “tightening environmental regulations and tribal tensions pose downside risks.” (Shanghai Metals Market)

Process of Bauxite Mining



1. Vegetation cleared, topsoil removed and set aside for rehabilitation
2. Scrapers, excavators used to remove remaining overburden and expose cap rock. Depending on depth of cap rock, it can be broken by blasting, or removed with scrapers, excavators
3. Bauxite then mined using excavators or loaders. Off road haul trucks transport bauxite to crusher. Several pits are usually mined simultaneously in order to supply refinery with consistent ore
4. Mined out area backfilled with removed over burden, the set aside top soil is redeposited, then re vegetated with plants indigenous to the area [\(The Bauxite Index\)](#)

According to USGS:

- “**Water requirements** of alumina plants range from 0.28 to 1.10 gallons per pound of alumina; the average for the industry is 0.66 gallon”
- “**Water requirements** of reduction works vary considerably more, ranging from 1.24 to 36.33 gallons per pound of aluminum, and average 14.62 gallons” [\(USGS\)](#)

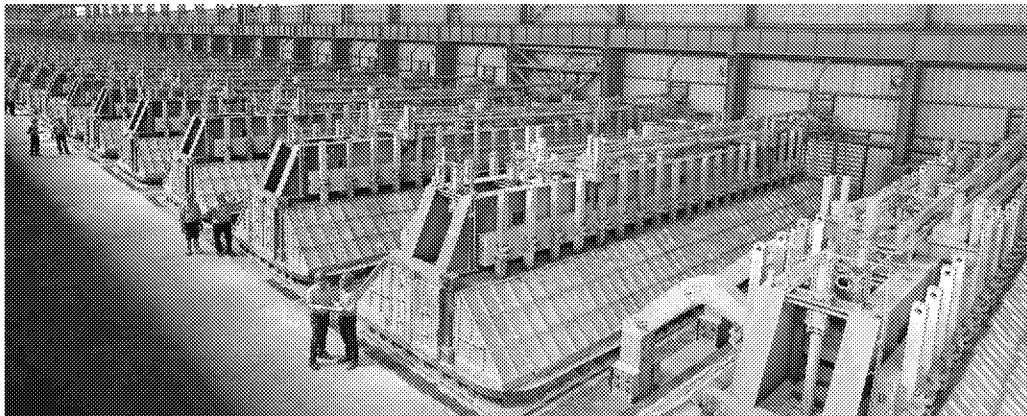
Aluminum Production and Global Demand

Aluminum contributed 2% of India's manufacturing GDP (steel 12%, cement 9%) in 2017. [\(2017, NITI Aayog\)](#)

Heightened global demand led to a 36% increase in India's aluminum exports in 2018 (in part driven by U.S. sanctions on the Chinese aluminum company, UC Rusal). Global demand for aluminum is expected to continue increasing [\(2018-19, Indian Mirror\)](#)

Vedanta alone produced 53% of India's aluminum in 2019.

- 38% of Vedanta's aluminum production came from the Jharsuguda-I and Jharsuguda-II refineries
- 41% came from the Lanjigarh refinery [\(2019, AL Circle\)](#)



Vedanta's aluminium plant at Jharsuguda in Odisha [\(2020, Steel Guru\)](#)

Export Markets

Bauxite

- India exported about 7% of its total bauxite produced in 2017-18 ([Ministry of Mines Annual Report, page 198](#))
- **China** is the main importer of bauxites from India, at nearly 90% of total Indian bauxite exports. ([2017, AG Metal Miner](#))
- Bauxite exports have fallen sharply since 2017 amid push for increased domestic aluminum production ([AL Circle](#))

Alumina

- India exported about 22% of its total alumina produced in 2017-18 ([Indian Minerals Yearbook 2018, 12](#))
- The **United Arab Emirates** accounted for 52% of India's alumina exports in 2017-18 ([Indian Minerals Yearbook 2018, 12](#))

Aluminum

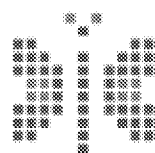
- India exported about almost half of the primary aluminum it produced in 2017-18, with the **United States and the United Arab Emirates** being the main importers ([Indian Minerals Yearbook 2018, 9](#))
- Indian-made aluminum products are mainly imported by South Korea, Malaysia, and the United States. ([AL Circle](#))

Domestic Aluminum Use

Electrical sector (48%)
Transport sector (15%)
Construction (13%)
Consumer durables (7%)
Machinery & equipment (7%)
Packaging (4%)
Others (6%)

(2018, India Minerals Yearbook, pg 8)

Domestic aluminum consumption may increase due to government programs like Make in India, the National Capital Goods Policy, “Smart City” development, and solar energy infrastructure development (2018, India Minerals Yearbook, pg 15)



Smart City
MISSION TRANSFORMATION

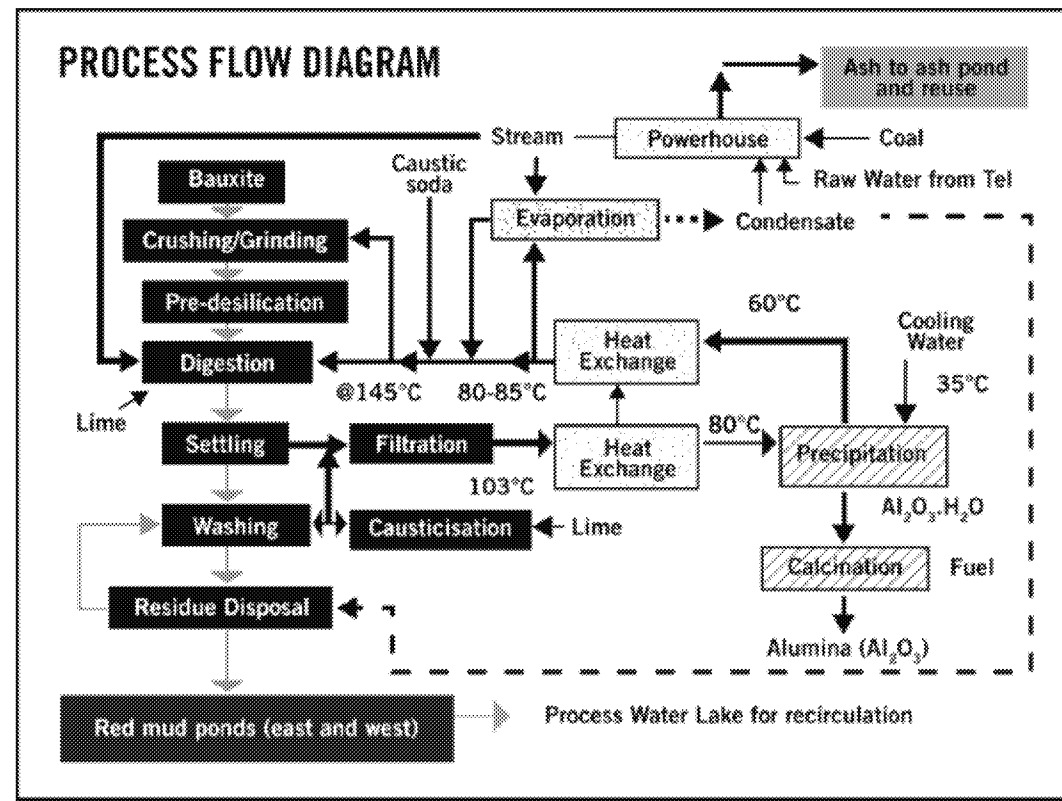
SMART CITIES MISSION

Ministry of Housing and Urban Affairs, Government of India

Alumina Refining - Bayer's Process Vedanta Uses at its Lanjigarh Refinery



(Bauxite Ore)



1. Bauxite is crushed, washed, dried, and dissolved in caustic soda at high temperatures
2. This mixture is then filtered to remove impurities called “**red mud**”
3. Remaining alumina solution is transferred to a precipitator tank, where the hot solution cools and aluminum hydroxide seeds are added
4. Seeds stimulate precipitation of solid aluminum hydroxide crystals. Aluminum hydroxide settles at bottom of tank and is removed
5. Aluminum hydroxide washed of remaining caustic soda and heated to remove excess water. Alumina emerges as fine white powder (Aluminum.org)

Vedanta Aluminum in Odisha State (Bauxite Mine)

Starting Year: 2003

Number of People Affected: 8,000

Land Area Affected (in ha): 731

Reasons/Nature of Land Conflict: Bauxite Mining

Type of Land: Forest

Summary of the conflict:

Niyamgiri Hills Bauxite Mine

Odisha Mining Corporation (OMC), a state-owned mining company, sought to construct a **bauxite mine in the Niyamgiri Hills, an ecologically important area and home to the indigenous group, the Dongria Kondh**. The Dongria Kondh have a significant religious, culture, and economic connection to the Niyamgiri Hills, and passionately opposed the project from its conception. Vedanta Aluminum established an alumina refinery at the base of the Niyamgiri Hills as part of an integrated project with the bauxite mine.

The **District Collector held public hearings** for both projects, and despite **later claims that the communities disapproved of the project, land acquisition for the refinery was approved** regardless and forest clearance for the mine was granted.



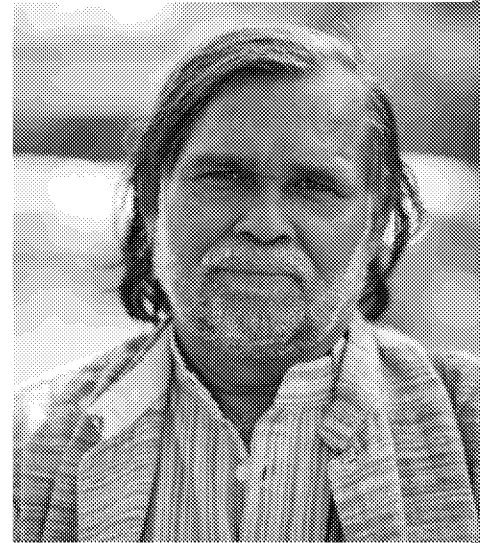
(Sacred Land Film Project)

Vedanta Aluminum in Odisha State (Bauxite Mine)

2004: Clearances for the mine and refinery were challenged by environmental activists, including Goldman Environmental Prize winner Prafulla Samantara, prompting a Supreme Court Committee investigation that recommended the revocation of clearances.

2010: MoEF inquiries into the mine's request for final forest clearance found various **violations of Forest Conservation Act and Forest Rights Act**. Environmental clearance for the project was revoked and OMC appealed the decision to Supreme Court.

2013: Supreme Court upheld the violations uncovered and gave final approval decision to the Gram Sabhas of the Dongria Kondh villages in Niyamgiri. All consulted villages voted against the project.



Prafulla Samantara
(2017, WRI)

Vedanta Aluminum in Odisha State (Alumina Refinery)

1997: Vedanta and the OMC sign an MoU to create an integrated bauxite mine in Niyamgiri Hills (*aforementioned case study*) and alumina refinery in Lanjigarh at the foothills of Niyamgiri.

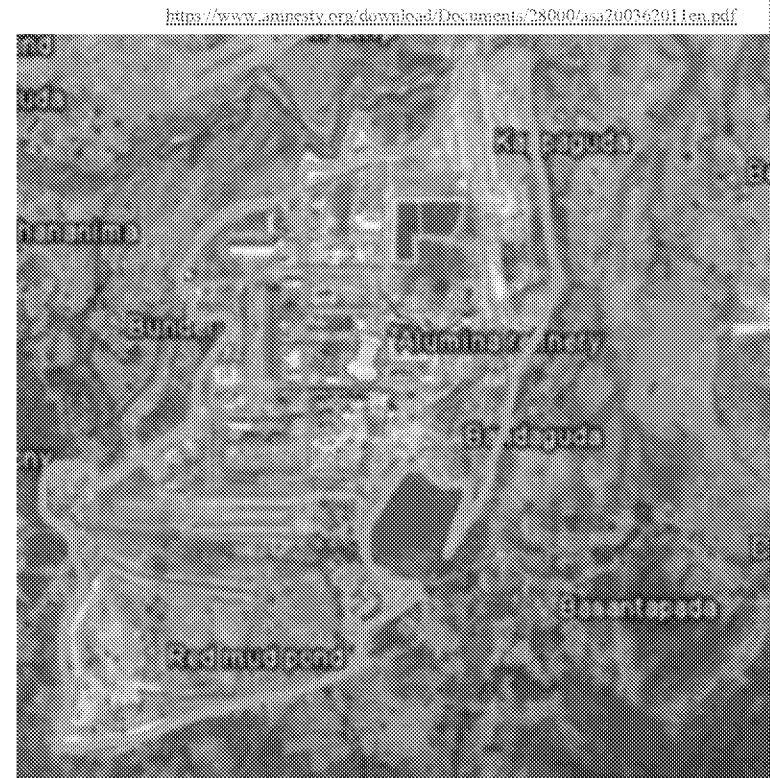
2002: Land acquisition for the refinery begins after Kalahandi District Collector issued acquisition notices, despite **public hearings at which community members recalled disapproving of the project.**

2003: Dongria Kondh activists form Niyamgiri Surakshya Samiti (NSS) (Niyamgiri Protection Council) to **organize protests against refinery and mine projects.**

2003, Orissa's Chief Minister laid the foundation stone for the refinery to kick off construction; the **stone was destroyed by protesters within three days.**

2004: Protests against the projects continue.

07/06/20



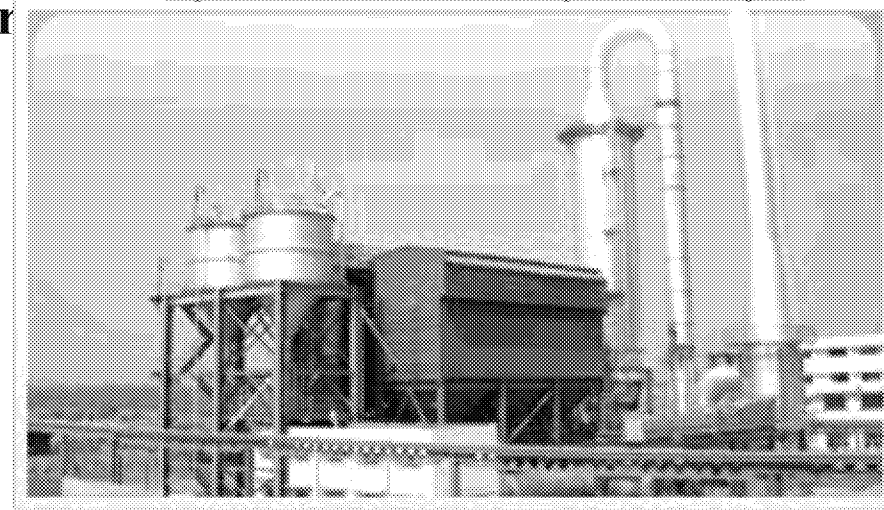
Proximity of refinery to surrounding villages

Vedanta Aluminum in Odisha State (Alumina Refinery)

2004: Three environmental activists file petitions with the Supreme Court's Central Empowerment Committee, constituted to investigate issues surrounding the diversion of forest land for development. The CEC's investigation concluded with a recommendation to temporarily suspend the refinery's environmental clearance, but the Supreme Court did not follow it.

Vedanta's Alumina Refinery

<http://www.vedantaaluminium.com/operations-refining.htm>



2008: Vedanta begins refinery operations. Before the refinery begins operations, Vedanta applies for environmental clearance for an expansion.

2008: As survey work for the expansion begins, hundreds of Dongria Kondh blockade the hill next to the refinery.

2010: National Human Rights Commission reports pollution from the refinery caused large-scale loss of livelihood among the local residents. The report also cited instances of **police misconduct in their treatment of the protesters.**

Vedanta Aluminum in Odisha State (Alumina Refinery)

2012: Protests continue against the refinery's operations and expansion. **Almost 50 residents are arrested protesting land acquisition for the red mud pond's expansion, one of the most polluting facilities at the refinery.**

Mid-2010s: Despite production troubles due to the bauxite shortages following the Niyamgiri bauxite mine proposal's litigation and eventual cancellation, refinery continues to operate at a reduced capacity with imported raw materials.

2016: Prafulla Samantara files petition with the National Green Tribunal challenging the environmental clearance for the expansion, citing, in part, Vedanta's failure to identify a reliable source of bauxite.

2016: Home Ministry declares that the NSS was being guided by Maoist insurgents. Dongria Kondh report increasing arrests, persecute, and physically harassment/torture for opposing the refinery.



March 18, 2019 protesters

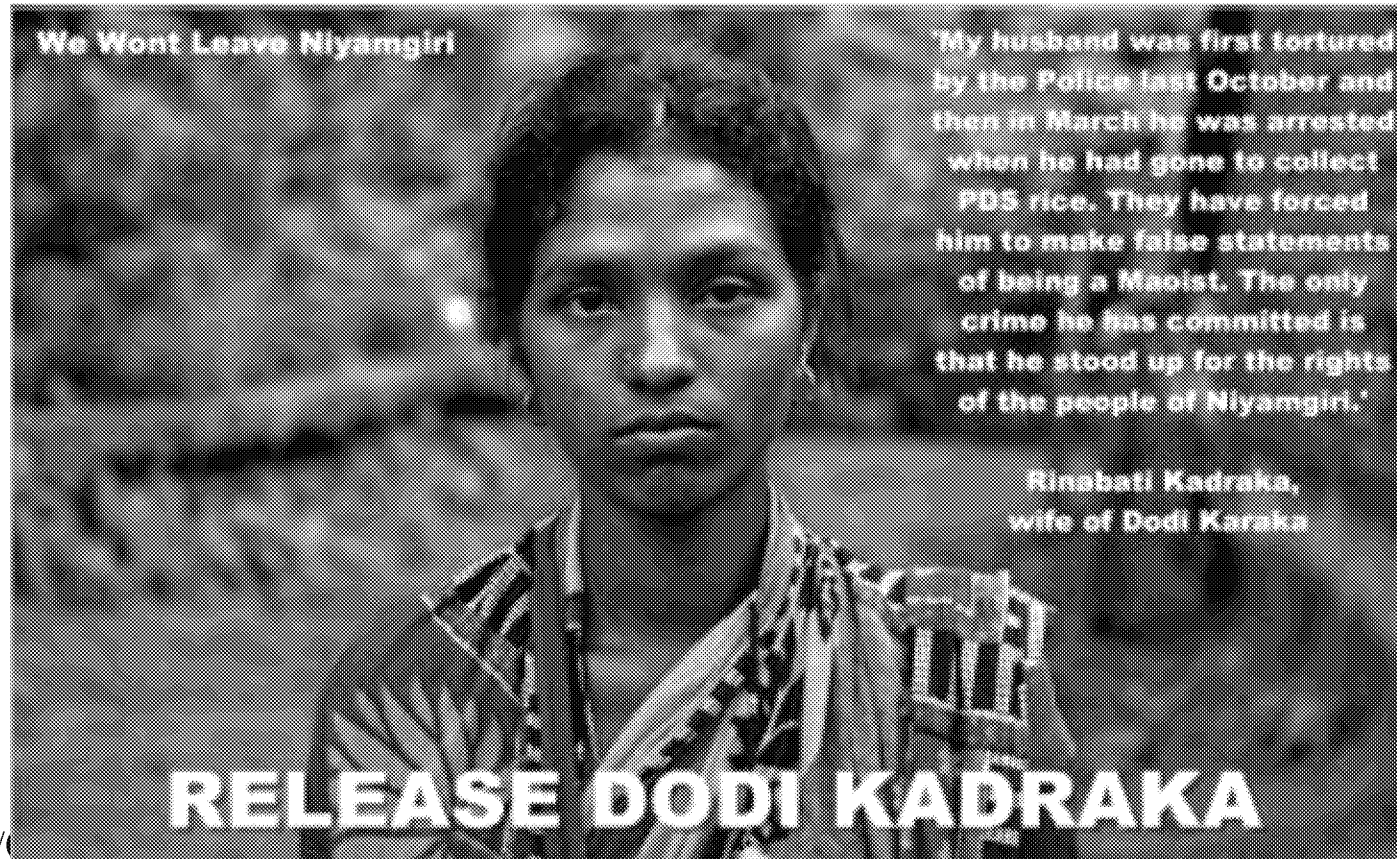
(2019, People's Dispatch)

Vedanta Aluminum in Odisha State (Bauxite Mine)

Lingaraj Azad, a tribal activist and leader of an organization that coordinates protests, is arrested on multiple occasions for holding protests. Central Reserve Police Force harassment, intimidation, and arrests contribute to tribal activists fear that the government is attempting to break resistance to the refinery's expansion in order to allow for bauxite mining in the Niyamgiri Hills.



Lingaraj Azad
(2019, Corporate Loot)



HydroPower

Hydropower Sector

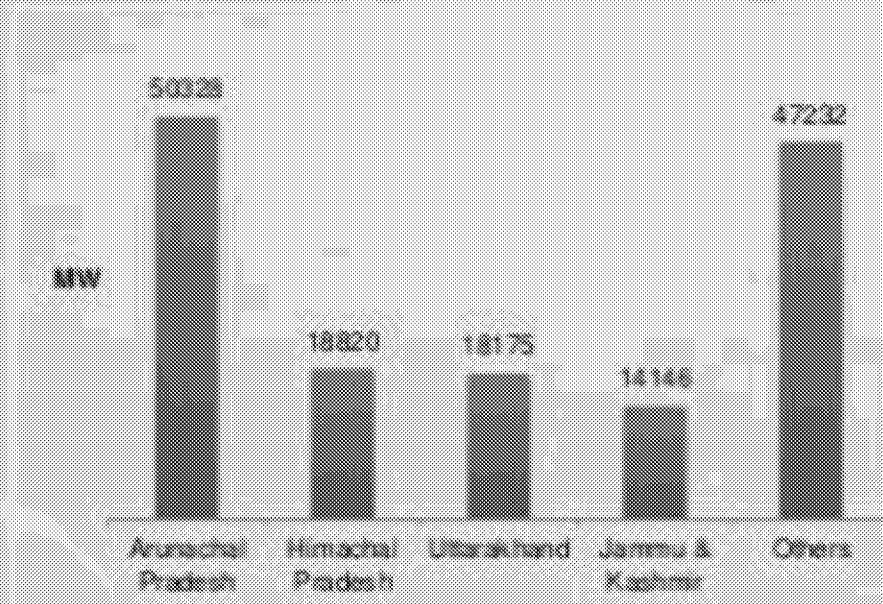
- **India is 5th globally for installed hydroelectric power capacity** (2020, Energyworld.com)
- **As of 31 March 2020**, India's installed utility-scale hydroelectric capacity was 46,000 MW, or **12.3% of its total utility power generation capacity** (2020, Ministry of New and Renewable Energy)
- Small hydropower comes under the ambit of the Ministry of New and Renewable Energy (MNRE), while large hydropower comes under the ambit of Ministry of Power (2017, Ministry of Power) (2018, Ministry of New and Renewable Energy)
- India also imports surplus hydroelectric power from Bhutan (2018, Ministry of External Affairs)

India's Hydropower Potential

Total hydroelectric power potential in India is assessed at about 1,50,000 MW, equivalent to 84,000 MW at 60% load factor.

Maximum potential is in the state of Arunachal Pradesh. It has 33% of total hydroelectric potential of India.

Himachal Pradesh, Uttarakhand and Jammu & Kashmir also have significant potential.



Small Hydro Power

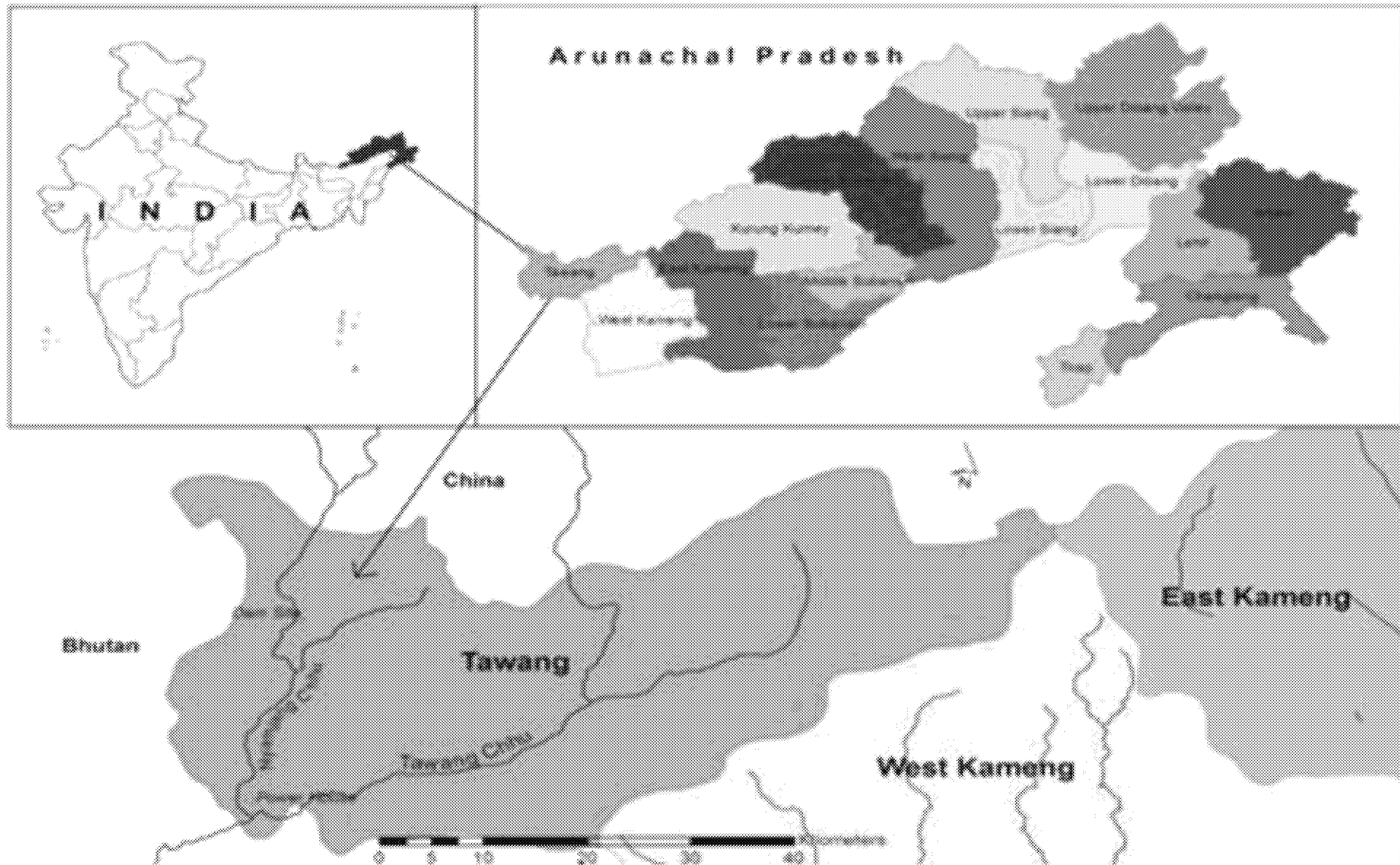
The estimated potential of small hydro (up to 25 MW station capacity) in India is of about 20,000 MW of which about 3632 MW has been exploited.

6,474 potential sites with an aggregate capacity of 19,749 MW have been identified.

Electricity generation from small hydro has become increasingly competitive with preferential tariffs. The challenge is to improve reliability, quality and reduce costs. The focus of the SHP programme is to lower the cost of equipment, increase its reliability and set up projects in areas which give the maximum advantage in terms of capacity utilization.

The aim is that out of the total grid interactive power generation capacity that is being installed, 2% should come from small hydro.

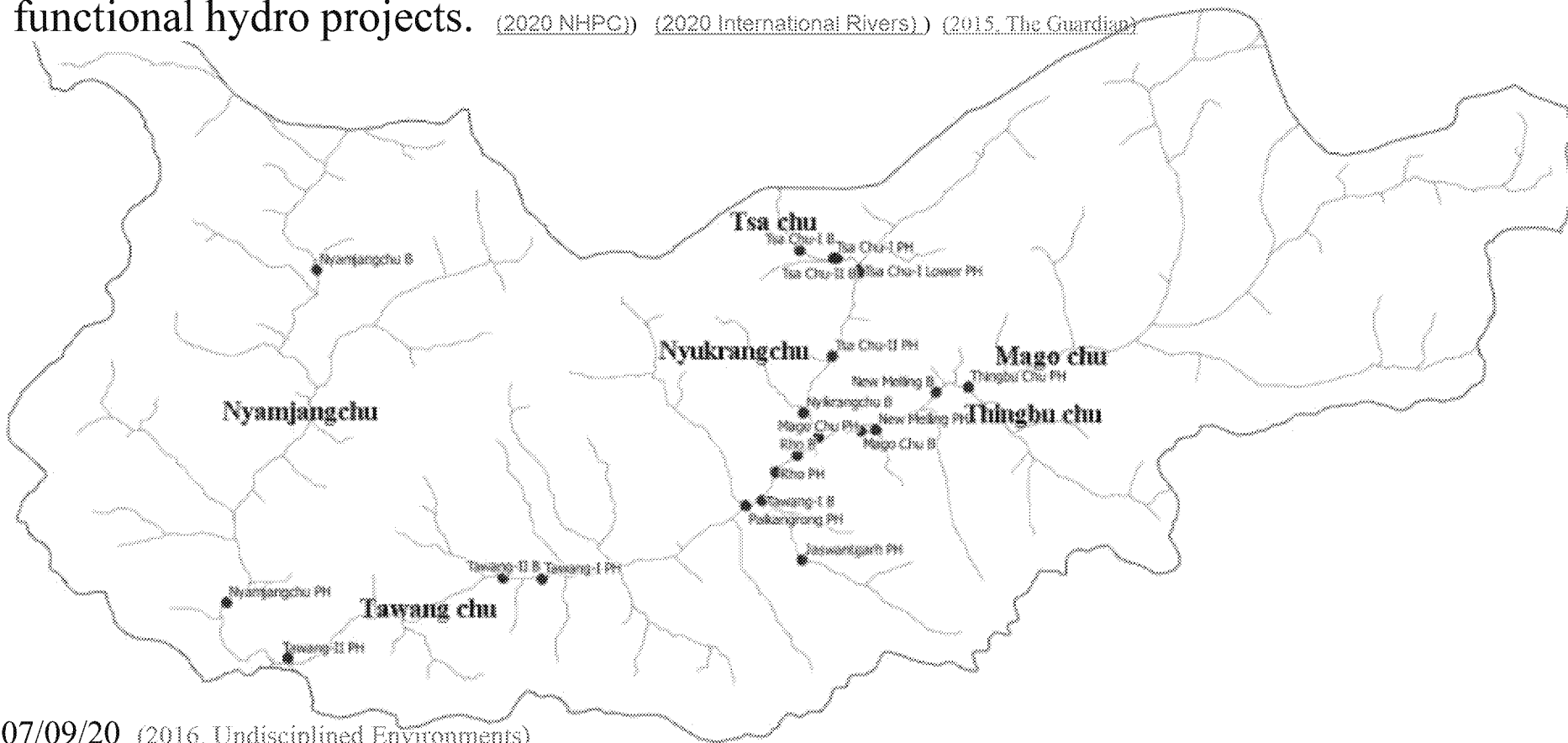
Arunachal Pradesh: Tawang River Basin



Tawang River Basin Dams, Hydroelectric Plants

The Arunachal Pradesh government has planned a number of dams and hydroelectric plants (HEPs) across two rivers -- the **Tawang Chhu** and the **Nyamjang Chhu** -- in Tawang district.

6 large-scale hydropower plants have been built, 7 are currently awaiting clearances, and 2 are under survey and investigation. There are also 31 mini and micro non-functional hydro projects. (2020 NHPC) (2020 International Rivers) (2015, The Guardian)

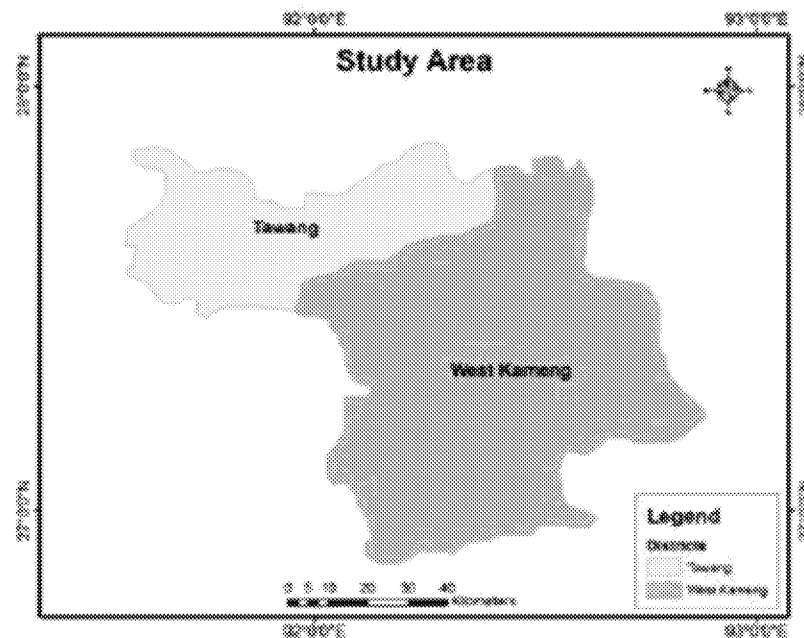
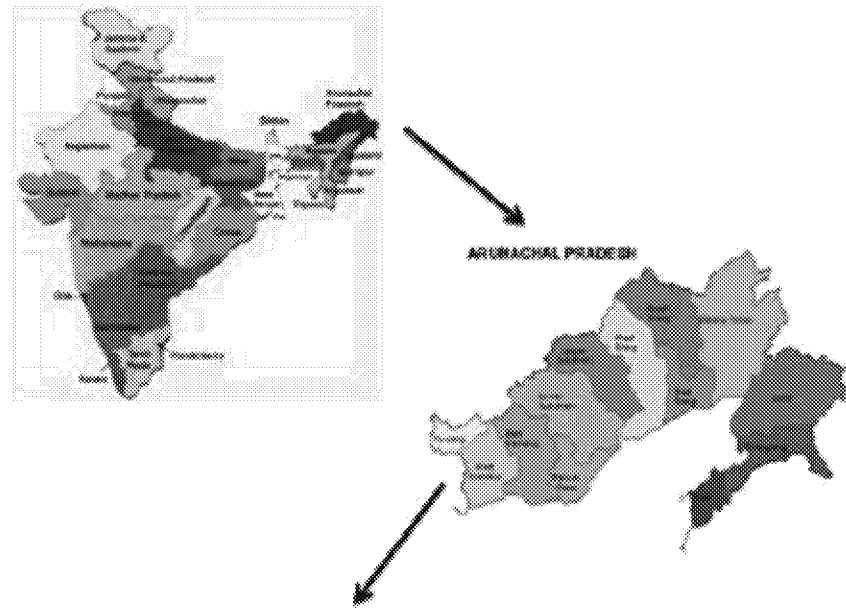


Monpa in Tawang District

The Monpa, a Scheduled Tribe, have a population of around 60,000 centered in the districts of Tawang and West Kameng in Arunachal Pradesh (most recent census in 2011).

(2011, Individual Scheduled Tribe Primary Census Abstract Data and its Appendix)

The Monpa constitute **97% of Tawang District's population** and inhabit all 163 villages



Tawang,
West
Kameng
Districts

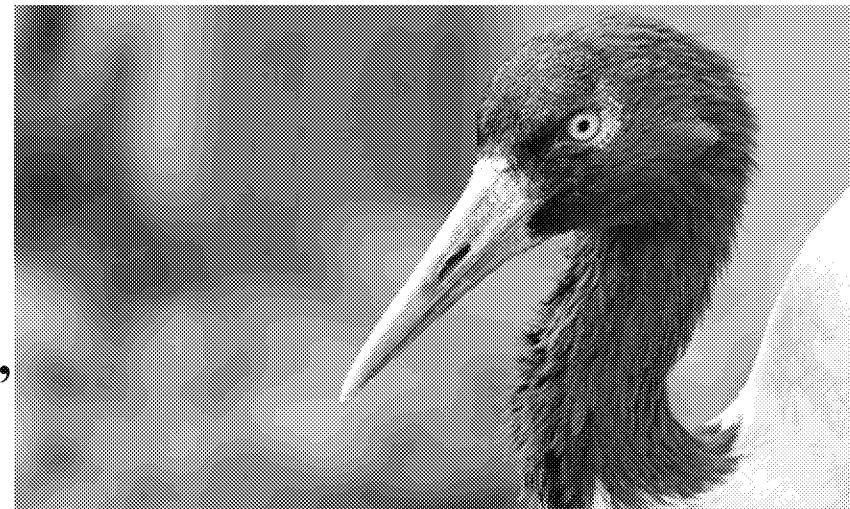
(2013, Research Gate)

Indigenous, Environmental Concerns about Dams in Tawang Basin

The Monpa fear new hydroelectric projects will affect their religious and cultural sites, monasteries, forests, and springs. (2015, The Guardian)*

Dams with combined capacity of about 2800MW of power, will submerge 249 hectares (615 acres) of forest, **vital to the Monpa's livelihood and spiritual beliefs***
(2015, The Guardian)

- The Nyamjang Chhu dam threatens the wintering site of the **black-necked crane, a threatened and protected animal in India**
 - The Monpa believe the **black-necked crane is a reincarnation of Tsangyang Gyatso, the 6th Dalai Lama (1683-1706),** who was a Monpa and wrote poetry about the black-necked crane



(2020, Stone Zoo)

This is in addition to the loss of about 828,537 hectares (2,047,360 acres) of forest that have been lost in the northeast since 2009 (2020, Mongabay)

Tawang I HEP, Tawang II HEP, and Nyamjang Chhu Hydroelectric Projects

- Nyamjang Chhu (780 MW) HEP

- **Funded by LNJBhilwara Group**

- Engages in textiles, graphite electrodes, power generation, and information service

- **Based and funded in India**

- Tawang I (600 MW) & Tawang II (800 MW) HEP:

- **Funded by National Hydro-Electric Power Corporation**

- Funded partially through selling of shares

Together these projects would provide service to more than 20 states and Union Territories, supplying power to both people and industries.

Tawang Basin Dams: Protests Start, With Monks Leading Monpa

Dec 29, 2009: MoEF issues Terms of Reference for Nyamjang Chhu Hydroelectric Project [\(2016, NGT\)](#)

Nov 2011: Society for Development of Culture and Education (SDCE), comprised mostly of monks, began spreading awareness among rural populations about the impact of hydropower projects in Tawang [\(2017, Northeast India by Amit Baishya and Yasmin Saika\)](#)

- **District Commissioner summons two Geshes** (graduates of Gelugs where monks/nuns receive education in Tibetan Buddhism), forces them to **sign bond that states for the next three years they will desist from any potential disturbing activity** [\(2016, The Wire\)](#) [\(2017, Northeast India by Amit Baishya and Yasmin Saika\)](#)

Feb 5, 2012: SDCE collect signatures from villagers opposed to hydropower projects/dam construction [\(2017, Northeast India by Amit Baishya and Yasmin Saika\)](#)

- **Village panchayat leaders warn villagers who help monks may lose government aid, access to education, etc.**

Feb 8, 2012- Public hearing called by Arunachal Pradesh State Pollution Control Board (APSPCB) held in New Lumla* [\(2012, The Arunachal Times\)](#) [\(2016, NGT\)](#)

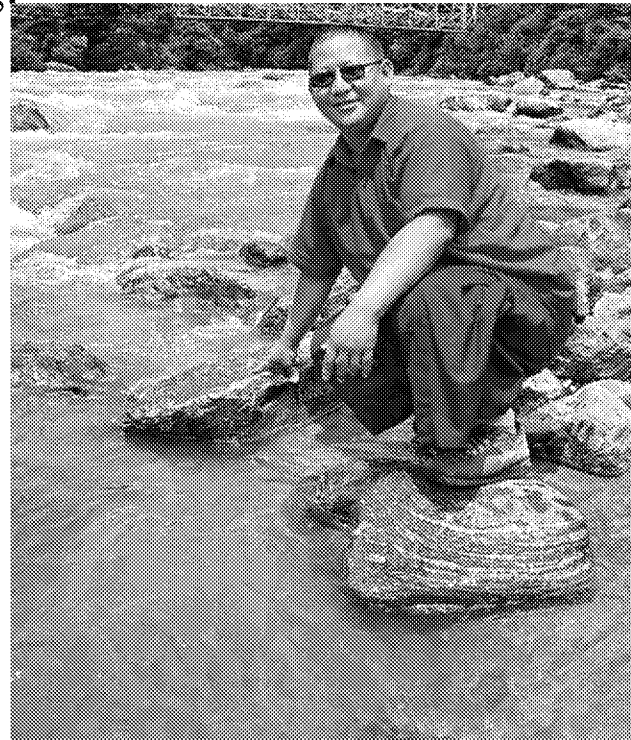
Feb 22, 2012- APSPCB submits detailed report of the public hearing to the Ministry of Environment and Forestry (MoEF)** [\(2017, Northeast India by Amit Baishya and Yasmin Saika\)](#) [\(2016, NGT\)](#) 168

Tawang Basin Dams: Monks File NGT Petition Against Environmental Clearance

Apr 19, 2012: MoEF grants Environmental Clearance to 780 MW Nyamjang Chhu Hydroelectric Project (2016, NGT)

2012: Monk Lobsang Gyatso (monk and General Secretary of the Save Mon Region Committee (SMRC, later SMRF)*) and Lobsang Choedar (Senior Buddhist Lama and SMRC Chief Advisor) file petition against the Environmental Clearance with the National Green Tribunal arguing:

- application concealed information, contained false and misleading information;
- public consultation was faulty;
- EIA not in accordance with MoEF's Terms of Reference; and
- clearance process didn't consider project's threat to the wintering site of the rare black-necked crane



Lobsang Gyatso

(2016, Buddhistdoor)

Tawang Basin Dams: NGT Review, Continued Protests

2012: On Nyamjang Chhu, **NGT asked for a fresh Environmental Impact Assessment studies**, a public hearing for local people, and an appraisal by the Expert Appraisal Committee on River Valley & Hydroelectric projects and the MoEFCC. ([2016, India Environment Portal](#)) ([2016, International Rivers](#)) ([2016, Environmental Justice Atlas](#)) ([2017, Northeast India by Amit Baishya and Yasmin Saika](#)) ([2016, The Wire](#))

Dec 2012: Villagers organize rally from Tawang monastery to protest construction of hydroelectric projects, defying a ban on public gathering ([2012, Times of India](#))

2013: Monks and villagers protesting against dams are beaten by police. SMRF writes several letters to the government to cancel Nyamjang Chhu project, but to no avail ([2016, Two Circles](#)) ([2013, International Rivers](#))



Monks beaten by police for protesting dams.
([2013, International Rivers](#))

Tawang Basin Dams: NGT Halts Project; Lobsang Gyatso Arrested; Two Killed

Apr 7, 2016: National Green Tribunal halts Nyamjang Chhu project following protest for re-evaluation, in response to SMRF 2012 petition.

Apr 25, 2016: Lobsang Gyatso arrested for organizing a protest, released on bail.

Apr 28, 2016: Lobsang Gyatso arrested second time for offences including “promoting enmity between different groups” and “outraging religious feelings” for his criticism of the stand of the abbot* of the Tawang Monastery on anti-dam protests**
(2016, International Rivers)

May 2, 2016: During protest over Lobsang Gyatso’s arrest, police shoot and kill two monks, **Tenpa and Nima Wangde**, and injure eight
(2016, The Third Pole)

Police Inspector General tells press police were forced to open fire when a “mob” tried to storm the police station in Tawang



(2016, Sabrang)



Tenpa and Nima Wangde

Protests and Unrest in Arunachal Pradesh: A Timeline

2017-2018: Wildlife Institute of India submits commissions report on possible impact**** of Nyamjang Chhu dam on Black Necked Crane. **Locals unanimously reject the dam.** ([2019, Times of India](#)) ([2018, Arunachal Times](#))([2017, Catch News](#))

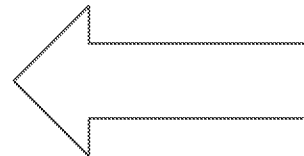
2019: Gram sabhas conducted in affected villages, and almost 90% of them rejected big dams and asked for smaller dams. ([2019, Nyamjang Chhu Hydroelectric Project \(NJCHEP\)](#))

- The Monpa, protesting against ecological damage and land acquisition, argue there are already 31 mini and micro non-functional hydro projects in the area, which should be made functional before any big project, in addition to proposed large-scale hydropower projects.

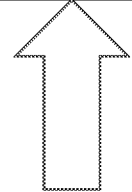
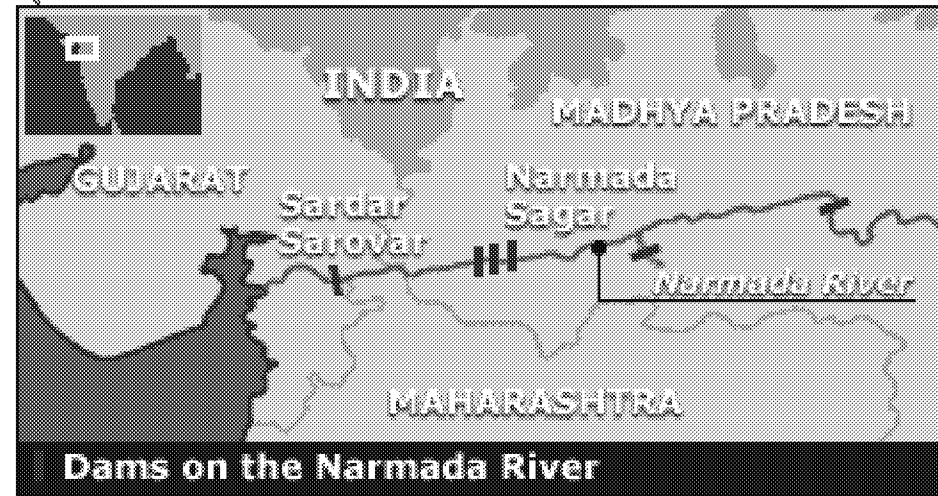
2019: Lobsang Gyatso runs for an assembly seat, the first opposition to the incumbent in 20 years, but drops out to focus on “greater green cause” ([2019, NDTV](#)) ([2019, The Hindu](#))

2020: Twang HEPs and Nyamjang Chhu Projects still do not have forest clearance. The affected land is of two types: farming and forest, much of which is community forest. ([2019, Nyamjang Chhu Hydroelectric Project \(NJCHEP\)](#))

Madhya Pradesh: Sardar Sarovar Dam



Madhya Pradesh in India (2019, Alamy)



Sardar Sarovar Dam in
Madhya Pradesh (2000,
BBC)

Sardar Sarovar Dam Info

- **Funding:**

- Originally funded by the World Bank
- Funding pulled in 1994 following citizens' and Government of India blowing whistle about state government's failure to comply with the World Bank's loan environmental requirements
- World Bank conducts investigation and determines state government is not in compliance
- Project receives funds by government funds and Gujarat Temple for completion
- Powers the states of Gujarat, Madhya Pradesh, Rajasthan, and Maharashtra

2007, Intercontinental Cry

- **Environmental Impacts:**

- Massive flooding of villages and productive land
- Negative effect on downstream fishing
- Threats to wildlife natural habitat
- Waterlogging and salinization of water
- Silting of riverbed
- Deforestation (ECC Platform)



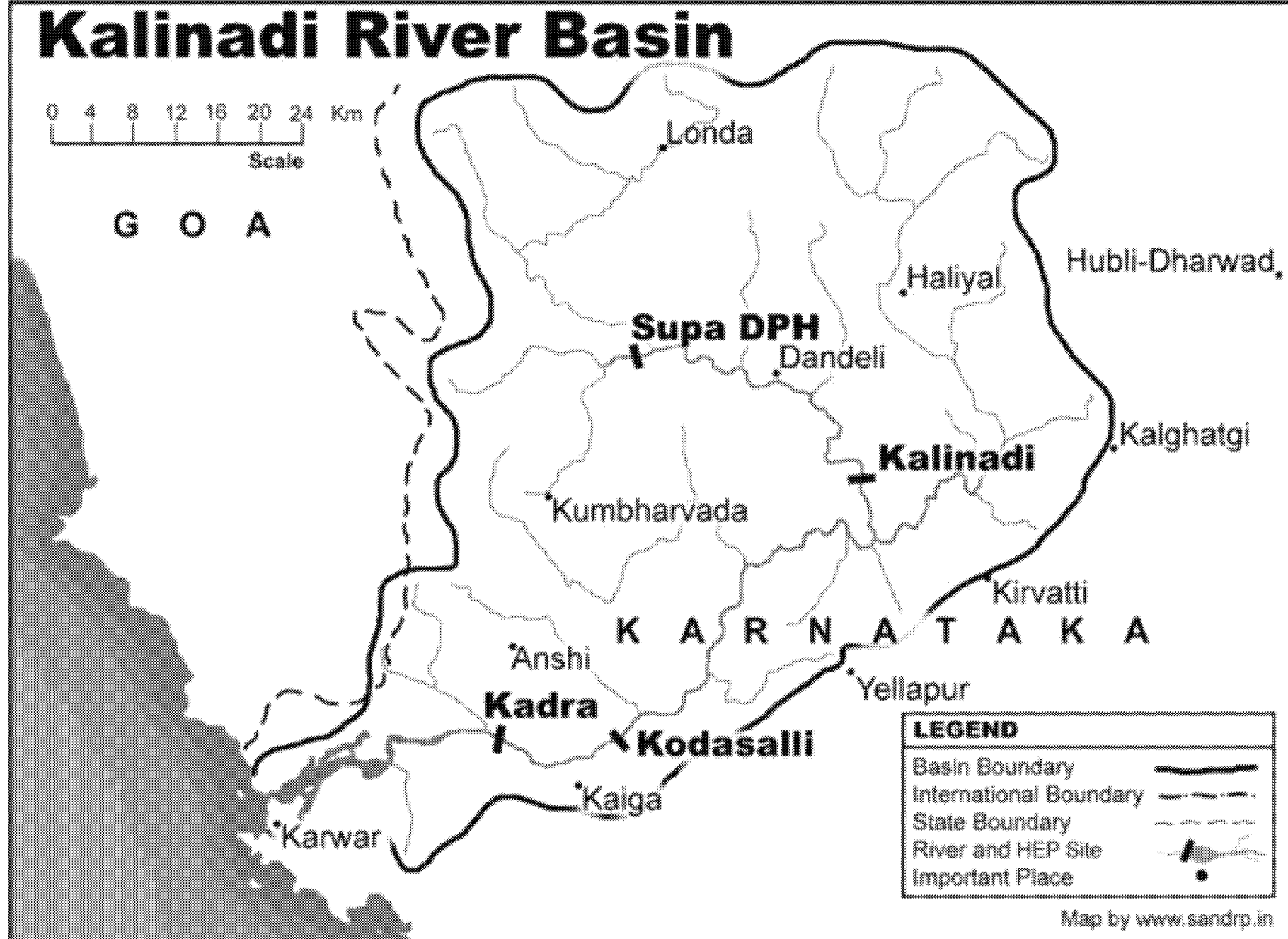
Karnataka State: Construction of Dams on Kali River Threaten River's Existence

- **Kali basin in south-central India is home to tiger reserve, hornbill reserve and wild elephants. Kali river estuary is home to 37 species of fish, as well as bivalves or mollusks.** (2019, Mongabay)
- Kali River, only 184 km long, has six major dams, built between 1980 and 2000. (2019, Mongabay)
- Second largest dam, the Supa dam in Karnataka, stretches 331.29 meters. It has submerged 24 villages and hundreds of hectares of forests.
- **Planned construction of a seventh dam would have destroyed the river and its ecology.** (2018, Nation of Change) (2013, South Asia Network on Dams, Rivers, and People)
- Kali Bachao Andolan is a movement to save the Kali river with advocacy efforts by multiple groups. (2007, Environment Support Group - Trust)

Kalinadi River Basin

0 4 8 12 16 20 24 Km
Scale

G O A



LEGEND

Basin Boundary
International Boundary
State Boundary
River and HEP Site
Important Place

Map by www.sandrp.in

Karnataka, Dandeli: Environmental Lawyer Killed July 2018

Ajit Maneshwar Naik, popular environmental and right to information activist, and well-known lawyer, was **brutally murdered in Dandeli as he was returning home** on the night of 27 July 2018. (9 Aug 2018, Counterview)

- “After finishing work, **Naik was heading to his car when a masked assailant attacked him with a sword**. Passersby took him to a nearby hospital, where he was declared dead on arrival.” (16 Aug 2018, Mongabay)
- “He was a **full-time activist taking on the local mafia** and protesting against several environmental issues, **particularly against effluents being dumped into the Kali river by paper mills in the area**.”
- President of Dandeli Taluk Horata Samiti (Dandeli Taluk Struggle Committee);
- active campaigner in Kali Bachao Andolan, a movement to safeguard the Kali River from damming, industrial pollution and rampant sand mining. He was **key in stopping the Dandeli Mini Hydro Project**
- **Although there was a probe into his death, it appears that no one has been held accountable.**
- He was 57 years old and is survived by his wife and two sons.



Madhya Pradesh: Sardar Sarovar Dam

Starting Year: 1987(Construction began) 2017 (Dam opened)

Number of People Affected: At least 40,000 families

Land Area Affected (in ha): 37534

Reasons/Nature of Conflict: **Displacement of at least 40,000 families** in the Narmada Valley face displacement without compensation or resettlement

Summary of the conflict since 2019:

- **Hundreds of protesters demanding better resettlement options for villagers displaced by a dam** in the central Indian state of Madhya Pradesh, are **bracing for more violence a day after several campaigners were forcibly removed by police.**
- Activists in Dhar district in Madhya Pradesh say 40,000 families uprooted by the Sardar Sarovar dam need more time than a court mandated July 31 deadline to leave their homes, as the state's resettlement sites are inadequate. Late on Monday, police took away Medha Patkar, founder of rights group Narmada Bachao Andolan (Save Narmada Movement), and about a dozen others who had been on a hunger strike for more than a week. [\(2017, Reuters\)](#) [\(2017, International Rivers\)](#)
- **In November 2019, protests were held in different districts of Madhya Pradesh to demand adequate compensation and rehabilitation for this displacement. Reports suggest while some families have been compensated, more than 7,000 families have yet to receive adequate support.** [\(2019, The Hindu\)](#) [\(2019, The Wire\)](#)

Manipur: Arbitrary arrests of Jiten Yumnam

Jiten Yumnam is the secretary of Centre for Research and Advocacy Manipur. He was former secretary of Citizens Concern for Dams and Development (CCDD) ([Frontline Defenders](#))

Sep 14, 2009: Yumnam is **arrested for “attempting to wage war’ and ‘conspiring to commit offences against the state,”** released two days later. **Frontline Defenders** later received records that Yumnam was admitted to a hospital for electrical burns; expresses concern over mistreatment ([Frontline Defenders](#))

Oct 3, 2013: Yumnam is **summoned to Manipur Police Commando complex and interrogated with no outstanding cases against him** ([2013, Asian Human Rights Commission](#))

Jul 1, 2015: Yumnam writes against Mapithel Dam project in Manipur, expressing environmental concerns in surrounding area and citing a National Green Tribunal case over potential Forest Rights and Forest Conservation Acts violations. ([2015, Yumnam's International Rivers Blog](#))

Aug 13, 2018: Yumnam was **allegedly arbitrarily arrested by Manipur Police Commandos without being given any official notification.** ([2018, BHRRCC](#))



The Centre for Research and Advocacy, Manipur is a human rights-based indigenous people's organization aimed at promoting sustainable development and human rights of indigenous peoples of North East India, primarily in Manipur State. ([AID JHE](#))

Water Pollution

Water Pollution

- **Water pollution is a major environmental issue in India. The largest source of water pollution in India is untreated sewage.** Other sources of pollution include agricultural runoff and unregulated small-scale industry. Most rivers, lakes and surface water in India are polluted. (2017, Huffington Post) (2015, International Scientific Journal) (2012, The Guardian)
- The problem is not only that **India lacks sufficient treatment capacity** but also that the **sewage treatment plants that exist do not operate and are not maintained.** (2012, The Guardian)
- The majority of the government-owned sewage treatment plants remain closed most of the time due to improper design or poor maintenance or lack of reliable electricity supply to operate the plants, together with absentee employees and poor management. (2018, India Times)

Mounting Concerns About Ganges Pollution



A boy searches for coins and gold in the polluted waters of the Ganges River in the city of Allahabad, India. SANJAY KANOJIA/AFP/GETTY IMAGES (Getty Images)

Ganges is India's longest river 2,500km (1,553-mile), flowing from the Himalayas to the Bay of Bengal. Supports a quarter of India's 1.3 billion people.

- **Hindus revere the river as a god**, believe that bathing in her waters can wash away a person's sins.
- Concerns have been growing for years. Choked by more than 1,000 irrigation dams, water table in its basin shrunk by reckless extraction of groundwater, its water poisoned by toxic industrial effluent and household sewage. (Dec 8, 2018 BBC)

Death of Swami Nigmananda, June 2011



(NDTV)



A boy searches for coins and gold in the polluted waters of the Ganges River in the city of Allahabad, India. SANJAY KADURIA/GETTY IMAGES

(Getty Images)

Swami Nigmananda, to attract the government's and media attention towards the Ganges mining crisis, decided to start a hunger strike. His efforts were recognized, and mining was shut down, only to restart after a few months. (ZME

Science)

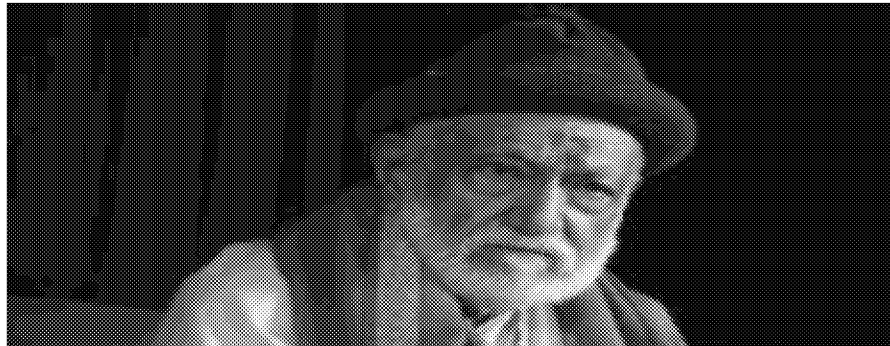
Quarrying was banned in Kumbh Mela area zone, which covers 140 sq km area in Haridwar, legal mining is allowed to take out silt deposits and minerals from the river bed. Illegal mining business has overtaken the legal business, causes large losses of state revenue annually. (Tribune India, 2011)

Swami entered a series of fasting for the next few years. On February 19, 2011 he again declared a fast. By April 27, his health began to seriously deteriorate. Four months later (June 13), after 115 days of peaceful defiance, Nigmananda died as the Ganges flowed, clouded by industrial waste

Death of Guru Das Agrawal, October 2018

- **Environmental activist fasts until his death on October 11, 2018 over fate of India's Ganges River:** Agrawal, 86, a pioneering environmental activist, died after a nearly four-month hunger strike that he began in late June to pressure the Indian government to take actions to rejuvenate the Ganges.
- Agrawal started his Mahatma Gandhi-style hunger strike on June 22, 2018. Among his demands were an end to all hydroelectric projects on the Ganga and its tributaries and to sand mining activities, the constitution of an independent body to manage Ganges affairs, and legislation to protect the river, but **there was no response at all from the Modi government.**

(2018, Science)



Guru Das Agrawal, a former graduate student of the University of California, Berkeley, began his fast on 22 June. He died on 11 October. PURNAPRAMATLIN

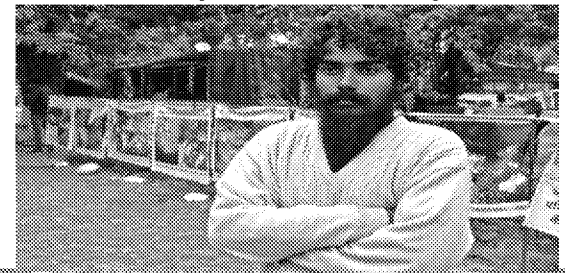


Hindu devotees perform rituals on the banks of the Ganges River in Kolkata on Oct. 8. (Dibyanshu Sarker/AFP/Getty Images)

Seer Atmabodhanand Takes up Agrawal's Hunger Strike to Protest Ganges Pollution

- **Weeks after the death of Agrawal, a young seer by the name of Atmabodhanand began a hunger strike in protest of pollution of the Ganges**
- **On May 6, 2019 Atmabodhanand broke his 194-day hunger strike after receiving “assurances” from Rajiv Ranjan Mishra, Director-General, National Mission for Clean Ganga, that laws banning sand mining on certain stretches of the Ganga would henceforth be enforced** (2019, TheHindu)
- **As of January 2020, Atmabodhanand was present during hunger strike of female seer Padmavati to protest pollution in the Ganges. He stated “NMCG officials visited us to take stock of Padmavati’s hunger strike. They have completely gone back on their word. They denied that they made any promises to me.”** (2020, IndiaTV)

(2019, TheHindu)



Timber and Rare Wood Smuggling

Timber and Rare-Wood Smuggling in NE States

Every Human Rights Report from 2014 to 2019 cites timber and “rare-wood” smuggling as a concern under corruption.* [\(2014, Human Rights Report on India\)](#)

- **2019:** “Media reports, NGOs, and activists reported links among politicians, bureaucrats, contractors, militant groups, and security forces in... timber smuggling in the northeastern states.” [\(2019, Country Report on India\)](#)

Observations and Look-Fors

General Observations and Look-Fors

- Each sector in this scenesetter is rife with examples of weak enforcement of what are seen internationally as relatively strong environmental laws and regulations.
 - Natural resource policy priorities and corruption appear to major factors contributing to weak enforcement.
- Civil society has had some key successes in appealing to the judicial system, particularly India's Supreme Court and National Green Tribunal.

Look-For:

- Unlawful Activities (Prevention) Amendment Act 2019, which allows the government to categorize **individuals** as terrorists, and the government's use of it to target individual environmental defenders.
- Government proposing a new Amendment Bill (like the Indian Forest Amendment Bill proposed in 2018) that would shift forest management decisions away from village councils.
- Amendment to the Right to Information Act (RTI), which CSOs are concerned will erode the independence of the Central Information Commission.
- Approval of the MoEF's Draft EIA Notification of 2020, criticized for weakening the role of the public hearing.
- Mineral Laws (Amendment) Bill of 2020, which could further deregulate the mining sector.
- Growing need for community environmental monitoring mechanisms.

Observations and Look-Fors in Coal Mining Sector

India's demand for coal will continue to grow. (2019, IEA)

- expected to grow by more than that of any other country through 2024
- coal power generation expected to increase by 4.6% each year through 2024

Mineral Laws (Amendment) Act 2020 further liberalizes eligibility criteria for participating in auctions and removes end-use restrictions (how coal can be used after extraction, in terms of how/where/who can purchase coal), which could have a direct impact on FDI.

Without stronger environmental enforcement and accountability for past illegal actions, an increase in coal mining will almost certainly lead to increased pollution at mining sites and surrounding communities, causing more protests and likely more threats and violence against environmental defenders.

Observations and Look-Fors from Iron/Steel Mining Sector

Odisha, Khandadhar Hills

- The Odisha Mining Company (OMC) reportedly encroached on Paudi Bhuyans indigenous land on behalf of a South Korean mining company POSCO.
 - The Paudi Bhuyans are likely to continue to object to the state government's efforts to allow another company to develop an iron mine.

Maharashtra, Gadchiroli mining

- Concerns about iron mining are expected to continue in Gadchiroli mining areas, despite the continued detention of Mahesh Raut

Observations and Look-Fors: Uranium Sector

Nallamala Forest Case Study

- The project was **approved** at the state level, despite concerns expressed by local **officials, NGOs, and Chenchu (indigenous) and non-indigenous communities**
- If the MoEFCC grants final forest clearance or environmental clearance for borehole prospecting:
 - it is probable there will be **more protests** in the short-term;
 - the Chenchu tribal group could again try to prevent entry of prospectors;
- If prospecting starts, there could be:
 - indigenous impacts, including displacement of families;
 - **environmental impacts** (water pollution, forest and wildlife impact) that could lead to human health impacts for the Chenchu villages near the boreholes, affecting their food production

Uranium Sector

- India's plan to increase mining for uranium and other nuclear materials for nuclear energy (plutonium, **thorium**, beryllium, deuterium) in new areas could cause protest

Initial Takeaways from Copper Sector

Sterlite Case Study:

- Thoothukudi residents were given almost no access to public participation, even when MoEF standing guidelines would have mandated it.
- Despite consistent reports of pollution and public health concerns, residents were not offered any redress by Tamil Nadu government.

Look-Fors

- The closure of Sterlite's copper smelter significantly reduced India's total refined copper output, which could present a challenge to Prime Minister Modi's vision for a self-reliant, net-exporting India.
- As Sterlite seeks a renewal of environmental clearance for the second copper smelting plant, it may again attempt to skirt the public hearing requirement by arguing its plant is integral to national security.

Initial Takeaways from Bauxite/Aluminum Sector

Aluminum Sector:

- While aluminum as a whole is not as significant to the Indian national economy as other metals, like copper, individual states with low employment and high rates of poverty may decide to industrialize if the opportunity arises.

Niyamgiri Hills Bauxite Mine:

- The Dongria Kondh were eventually given their due process to reject the mining proposal. The Central Reserve Police Force (CRPF) continues to arrest protestors against the refinery. Vedanta officials admit privately that they hope to be able to mine bauxite in the Niyamgiri Hills.

Lanjigarh Alumina Refinery:

- The Odisha State Pollution Control Board's extremely infrequent inspections of the refinery do not provide local residents with adequate access to environmental information.

Observation and Look-Fors in Sand Mining Sector

- Demand for sand will continue to grow as it is an important resource for construction companies (6:1 sand to cement ratio)
- As sand is a minor mineral and comes under state jurisdiction, illegal sand mining will remain rampant in states that are seeing huge infrastructure and irrigation projects
 - Sand, as a mined mineral, is a one of the most abundant problematic sectors.
- River sand will be the most sought after as most sand from deserts cannot be used for concrete and land reclaiming, as the wind erosion process forms round grains that do not bind well
- The removal of sand disrupts basking and egg-laying habitat, while at the same time causing water tables to drop, even as India faces water shortages
- Journalists, activists, and local government officials are all risking their lives to defend the environment against the sand mafia's illegal activity

Look-Fors

- “Will the Indian Government conduct any study on availability or cost to the environment stemming from sand extraction or commission a study exploring alternatives like recycling of construction debris” (2015, AWAAZ Foundation)
- Since state governments have power to regulate sand mining as a minor mineral, we can look for states that take an initiative to effectively curb sand mafia mining activities and corruption, and whether those states can become models for other states to follow.

Observations and Look Fors in Hydropower Sector

- **India's large and growing population means the demand for electricity in India is substantial as is the need to identify environmentally friendly sources of power. India is planning to achieve a hydropower generation capacity of 70,000 megawatt (MW) by 2030** (2020, Economic Times)
 - **Hydropower can be an attractive source of renewable energy**
- **Dams pose their own environmental challenges, like flooding and ecosystem destruction.**
 - **Many available sources of water are either drying up across India, non-potable, or are being redirected towards hydropower projects. As India's water crisis grows, the active restricting of sources of water will grow as a major source of conflict.** (NHPC India)
- **Communities, particularly indigenous communities, are ready to go to great lengths to defend water sources they revere as holy or sacred, making the water sources in question more prone to conflicts**
- **Arunachal Pradesh is positioned to be a focus of hydroelectric projects. India's border dispute with China could make protesters of those project vulnerable to claims of anti-social or Maoist affiliation, especially since the Indian government has accused China of funding anti-dam NGOs in Arunachal Pradesh.** (2019, Live Mint)

Observations and Look Fors - Water Pollution

- **Water pollution issues are often directly related to mining issues**, as mineral extraction is one of the lead causes of pollution in most rivers, including the Ganges.
- **The majority of India's environmental conflicts in the Environmental Justice Atlas relate to water management problems, including water pollution and hydropower. .**

Look-Fors

- Prevalence of hunger strikes in Ganges water pollution issues.
- Structural barriers to public participation in case studies:
 - Public hearing location, Zemithang, inaccessible to most affected residents in Tawang Basin

Reference



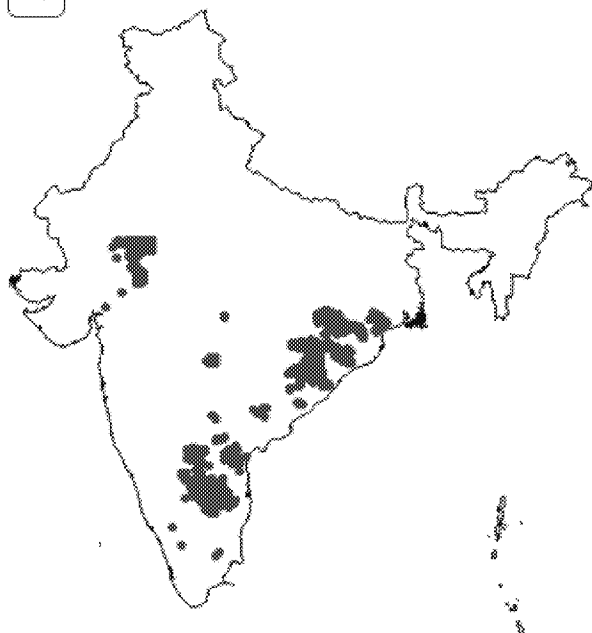
 India

COUNTRY LAND



AREA:

312,578,027
Hectares



Community Land Acknowledged by Government and Documented

([LandMark India Profile](#))

INDICATORS OF THE LEGAL SECURITY OF INDIGENOUS AND COMMUNITY LANDS

Communities

Indigenous
Peoples

2.4

AVERAGE SCORE

2.4

2

Legal Status

2

3

Land Rights and Common
Property

3

3

Formal Documentation

3

3

Legal Person

3

3

Legal Authority

3

2

Perpetuity

2

2

Right to Consent

2

2

Rights to Trees

2

2

Rights to Water

2

2

Land Rights and Protected
Areas

2

Indicators Scoring

1

Issue fully
addressed

2

Significant progress

3

Limited progress

4

Issue not addressed

2017 Resource Governance Index

Oil and Gas Sector

Sector contributes 12 percent of total exports but growing domestic demand makes India a net oil importer.

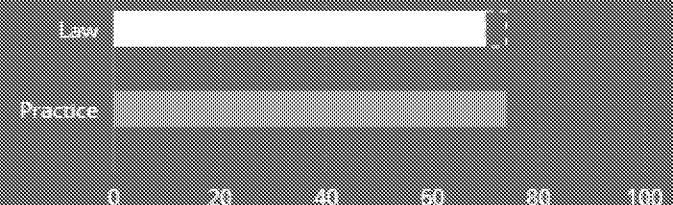
Sector ranks 9th of 89 assessments in 2017 RGI with second-best resource governance in the Asia-Pacific region, trailing only Australia. Political instability poses risks to sector governance.

India ranks first in the region in local impact thanks to well-defined requirements for environmental impact assessments, rules for environmental risk mitigation plans, and rules for compensation to land owners.

India has implemented competitive and transparent licensing processes. However, neither the New Exploration Licensing Policy nor the reformed Hydrocarbon Exploration and Licensing Policy require the disclosure of biddable terms and details of license winners.

<https://resourcegovernanceindex.org/country-profiles/IND/oil-gas>

INDIA: LAW AND PRACTICE SCORES



Global Witness Reporting – Comparison with Other Countries 2017



PESA Act of 1996

The 1996 Provisions of the Panchayats Act (PESA) was passed to ensure self-governance for indigenous Schedule V areas. PESA mandates the recommendation of the Gram Sabha or panchayat at appropriate level be obtained before granting:

- Prospecting licence for minor minerals
- Mining lease for minor minerals
- Auction of minor minerals for exploitation
- “the failure to include major minerals in the purview of PESA, is a significant and insurmountable flaw in the parent Act” (2016, Land and Governance Under the Fifth Schedule, page 58))

PESA contains the provisions for consultation described in RFCTLARR Sec 41(3):

(2016, Land and Governance Under the Fifth Schedule, page 58))

- The consultation is mandatory and must occur before a government decision
- Information on the purpose of the land acquisition must be provided before the consultation (ie. activity proposed, environmental impact, rehabilitation scheme)
- Any suppression of information could vitiate the consultation process
- The views expressed in the consultation process must be taken into consideration by the government while making a final decision. If they are not, the final decision of the State government could be invalid *

* Courts upheld this mandate in *Indian Administrative Service (SCS) Association U.P. vs. Union of India 1993 Supp (1) SCC 730* (Indian Administrative Service)

Forest Conservation Act Forest Clearance Process

MINISTRY OF ENVIRONMENT, FORESTS AND CLIMATE CHANGE

Stage-I (in-principle approval): The stage-I clearance is a conditional approval based on the recommendations of the Forest Advisory Committee (FAC) or the State Advisory Group (SAG), as the case maybe. The conditions could include identification of compensatory afforestation land, additional studies, and others. Only after compliance of these is the approval granted. For linear projects like construction of roads, railways etc, after an in-principle approval, construction can begin.

Stage-II (final approval): This is the final approval by the MoEFCC which is communicated to the state governments along with a list of conditions that need to be followed while allowing for use of forest land for other uses including industry, mining, plantations etc.

STATE GOVERNMENT

The forest diversion comes into effect only after the state government, under Section 2 of the Forest Conservation Act, 1980, passes an order. It is only after this that any non-forest activity can be initiated on the forest land.

INTERFACE WITH FOREST RIGHTS

Following the passage of the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 (FRA 2006), forest land cannot be diverted and trees cannot be felled until the process of recognition of rights is determined and approval of the gram sabha (village assembly) is taken. The details of this are prescribed under the FRA, 2006. According to the MoEFCC Circular (dated 3/8/2009), the state government has to provide evidence of initiating and completing the process of settlements while sending the proposals for the diversion of forestland. It also has the requirement of the consent of the gram sabhas prior to any permission for diversion. This consent however applies only to non-linear projects (as per MoEFCC circular in 2013).

Coal – Communities Harmed by Pollution, Water Impacts

- **80-120,000 premature deaths** and 20m new asthma cases a year due to **air pollution**
 - **Cost hospitals \$3.3-\$4.6bn a year** — a figure certain to rise
 - The Delhi and Kolkata regions were found to be the most polluted but Mumbai, western Maharashtra, Eastern Andhra Pradesh and the Chandrapur- Nagpur region in Vidarbha were all affected (the Guardian, 2013)
- (coal-based) thermal plants withdraw around 22 billion cubic metres of water every year – **more than half of India's domestic water needs**
 - Indian plants with cooling towers use an average of 4 m³/MWh
 - Chinese plants is 2.5 m³/MWh (cubic metres per megawatt-hour)
- **55%** of the units analysed were found to be **violating air pollution standards**, even when India's air pollution standards are extremely lax
 - Particulate matter norms in India are 150-350 mg/Nm³
 - Chinese norm is 30 mg/Nm³ (milligram per normal metre cube)
- The average efficiency of the Indian plants was 32.8%, one of the lowest among the major power producing countries.
 - The thermal plants have generated 170 million tonnes of fly ash of which only 50-60% have been utilised. Currently, about a billion tonnes of this toxic ash, a by-product, lies in dumps, polluting land, air and water. It is estimated that by 2021-22, the sector will produce 300 million tonnes of fly ash every year.

Sonepur Bazari Open Cast Mine of Eastern Coalfields Limited

Starting Year: 2011

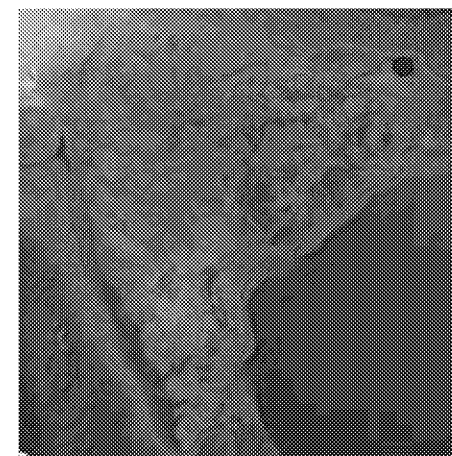
Number of People Affected: 10,000

Land Area Affected (in ha): 2,405

Reasons/Nature of Land Conflict: Non-rehabilitation of displaced people

Type of Land: Private

Summary of the conflict:



This Rs 250crore coal excavation project is under the Sonepur Bazari Open Cast Mine of Eastern Coalfields Limited (ECL). In the first part of this project, ECL took land from residents of five villages but did not provide the rehabilitation package it promised and dumped the villagers in an area where they could not meet their basic needs. In the second part, ECL plans to acquire land of Shonpur Ruidaspara, Hansdiha, Punjabidanga, Bheladanga villages. In total, more than 10,000 people would have to be displaced in 11 villages.

On 3 October 2016, members of 15 families, who till date have not got compensation and jobs in accordance with their demand, sat on hunger strike in front of the office of the general manager of ECLs Pandaveswar area. The ECL authorities reportedly say that the families couldnt be issued job offer letters due to some technical difficulties.

Arunachal Pradesh Timeline Summary: Key Actors, and Dates

- **Key Actors**
 - Monpa (Indigenous group)
 - LNJ Bhliwara Group (Funded Project)
 - Ministry of Environment, Forests and Climate Change
 - National Green Tribunal
 - Society for Development of Culture and Education (SDCE)
 - Save Mon Region Federation (SMRF)
- **Key Dates**
 - November 2011: Geshes raise awareness about hydropower projects
 - December 2012: Villagers organised rally from Tawang monastery to protest construction of hydroelectric projects, defying a ban on public gathering
 - January 2013: SMRF begin to act on behalf of Monpa to halt project
 - April 15, 2016: Project halted following petition by SMRF
 - 2017-2018: Assessment including black-necked crane complete. Locals unanimously reject dam in survey taken
 - 2020: Nyamjamg Chhu and Tawang Projects yet to receive clearance

Outdated Case

- In April 2011, following resistance by local residents against house demolitions at Matkoria, four people were killed in clashes with police attempting to clear land owned by Bharat Coking Coal Limited. In addition, 21 people were injured and 27 arrested. https://www.sourcewatch.org/index.php/Jharkhand_and_coal#Companies

Land Defenders

Maharashtra: Five Arbitrary arrests in August 2018

Arun Ferreira, Gautam Navlakha, Sudha Bharadwaj, Varavara Rao, Vernon Gonsalves, five human rights defenders, were arrested after their houses were raided. Media reported they were arrested because of alleged links to extremists, but the Human Rights and Business India Network stated the arrested have been advocating and protecting the rights of the most marginalized communities and indigenous peoples in the country and that they have unimpeachable credentials and a strong body of human rights work spanned over decades and that they have been targeted to divert attention from the Sanatan Sanstha conspiracy, and to discourage defenders protecting land and forest rights of indigenous communities from the corporate cronies of the ruling government in an effort to malign people's movements by clubbing all genuine protests as orchestrated by naxals and maoists particularly those in the recent past such as anti-sterlite and villagers protesting land grab by multinational companies, such as POSCO struggle.

[https://www.business-humanrights.org/en/29082018-arun-](https://www.business-humanrights.org/en/29082018-arun-ferreira?keywords=&resulttype%5b%5d=defenders_incident&countries%5b%5d=3562_04/10/2019)



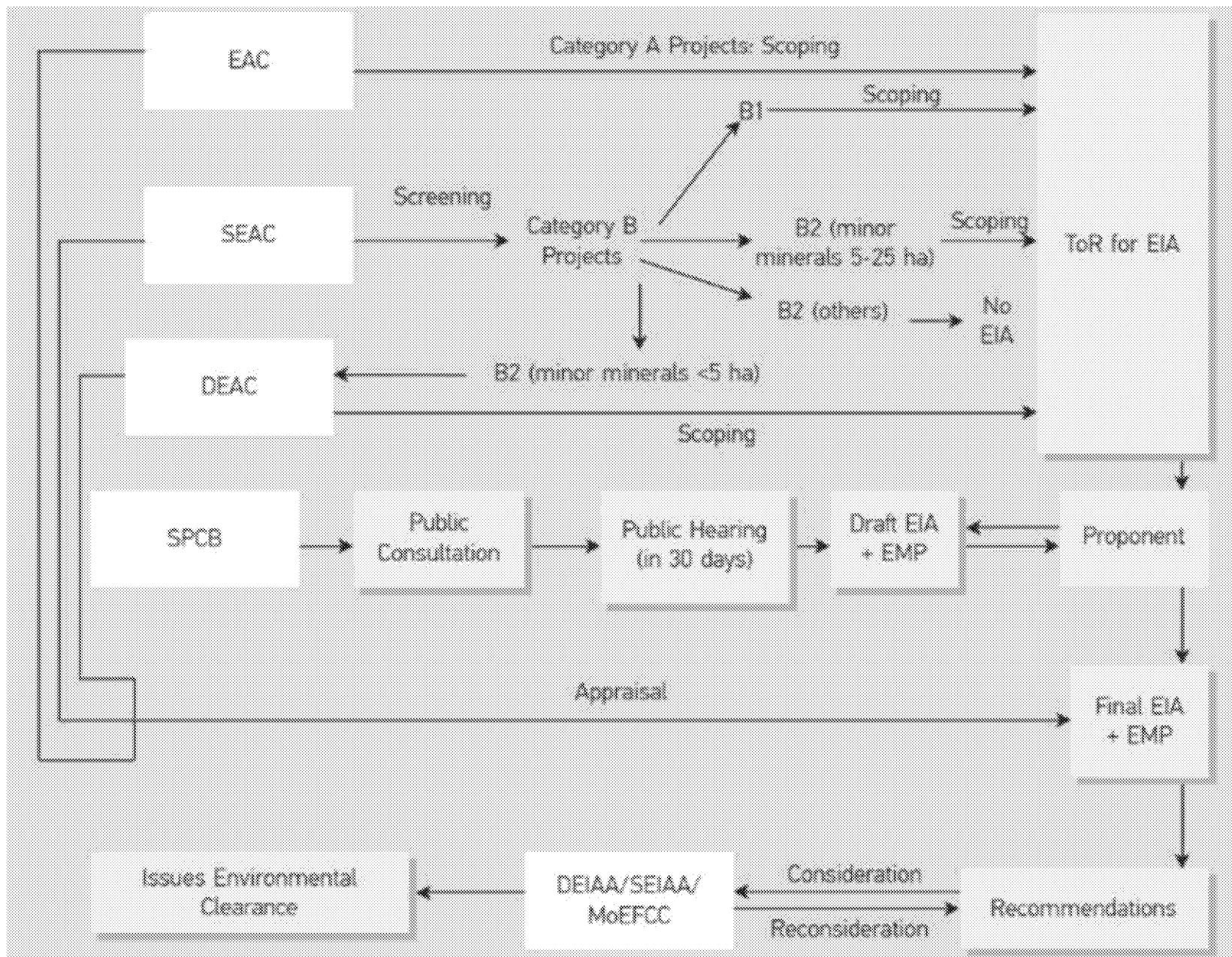
Ministry of Mines Interim Report on Illegal Mining

“There is **enormous and large scale multi-state illegal mining** of iron ore and manganese ore **running into thousands of crores every year**, having several pernicious evil effects on the national economy, good governance, public functionaries, bureaucracy, public order, law and order. It has encouraged huge corruption at all different levels in public life, mafia in society and money power. It is not only national loot, but also has deleterious effects on the national economy and society. This has to be stopped immediately and effectively. **The main cause & incentive for this illegal mining of iron ore and manganese ore is the huge profit in the export market (mainly China).** The prices of these have gone up by about 20 times without any corresponding benefit and increase to the public exchequer.”

Recommends:

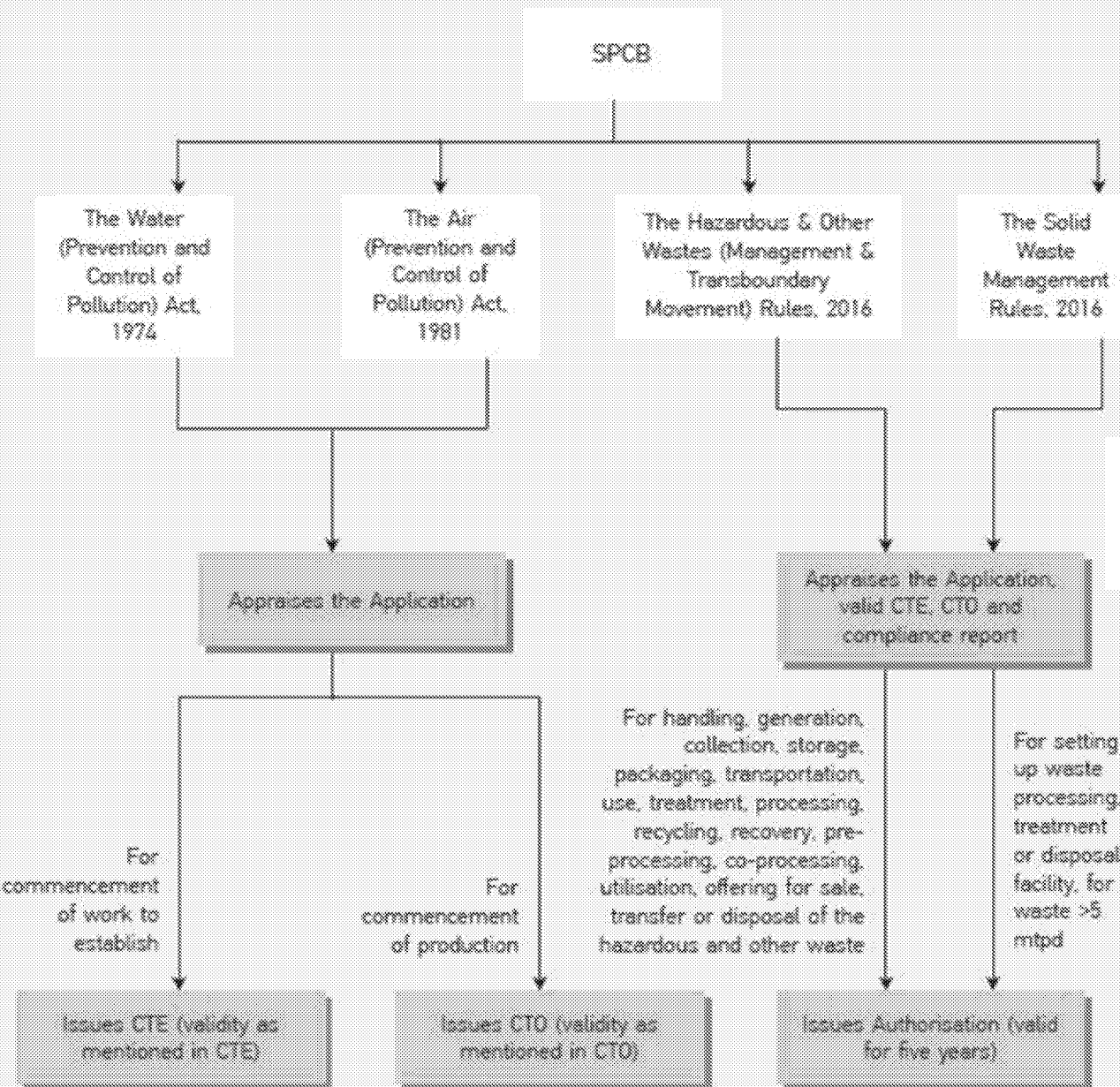
1. To streamline mining lease renewal process:
 - a. Amendments to Mineral Concession Rules, 1960
2. To control illegal mining
 - a. Amendments to MMDR Act, 1957
 - b. Amendments to Mineral Concession Rules, 1960

EC Procedure under 2006 EIA Notification



State Pollution Control Board Consent Process

Consents/authorisations under pollution laws



CTE - Consent to Establish
CTO - Consent to Operate

(2016, CPR India)

07/06/2020

212